



March 10, 2022

REVISION TRANSMITTAL SHEET

TO: Holders of the Pratt & Whitney Canada Component Maintenance Manual
73-10-05, Manual Part No. 3053386.

SUBJECT: Revision No. 6, dated Mar 10/2022

Please refer to the next page for Highlights of the changes.

References to the engine model applicability have been removed within this revision due to format change of the P&WC Component Maintenance Manual. For data on the correct applicability of the part number to an engine model(s), refer to the respective engine Illustrated Parts Catalog (IPC).

Any discrepancies, problems or suggestions regarding this revision should be sent via the Support Ticket application under the Help menu on MyP&WC Power portal at <https://customer.pwc.ca>

You can send your comments in writing to:

Pratt & Whitney Canada Corp. 1000 Marie-Victorin
Longueuil, Québec
Canada J4G 1A1

Attention: Manager, Technical Publications (05MS1)
Email: customer.service@pwc.ca
Fax: (450) 468-7688

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Component Maintenance Manual (CMM)
MANUAL P/N 3053386 REVISION NO. 6
HIGHLIGHTS

Page	Section Title	Change Description
N/A	Title Page	Engine model applicability has been removed.
1	Introduction	<p>Revised paragraph 1.(2) to remove “engine model series”.</p> <p>Revised Table 1:</p> <ul style="list-style-type: none"> - to update the title from “Part Number, Engine Model/Series and Configuration” to “Part Number and Configuration”, - to remove column “Engine Model/Series”, - to update the note from “This information is provided for reference only. For data on the correct applicability of the part number to an engine model(s), refer to the respective engine Illustrated Parts Catalog (IPC).” <p>to: “For part number applicability to a particular engine model, refer to that engine model’s Illustrated Parts Catalog (IPC).”</p>
1008	Testing and Fault Isolation	Revised Note 1 of Table 1009 to update skewness value from “Maximum skewness -5°.” to “Skewness must be ±5°.”
1009	Testing and Fault Isolation	Revised Note 1 of Table 1010 to update skewness value from “Maximum skewness -5°.” to “Skewness must be ±5°.”
1010	Testing and Fault Isolation	Revised Note 1 of Tables 1011 and 1012 to update skewness value from “Maximum skewness -5°.” to “Skewness must be ±5°.”
1012	Testing and Fault Isolation	Revised Note 1 of Table 1013 to update skewness value from “Maximum skewness -5°.” to “Skewness must be ±5°.”
15003	Storage	<p>Subtask number has been updated from "73-10-05-94A- 001" to "Subtask 73-10-05-94A- 008".</p> <p>Revised Table 15002:</p> <ul style="list-style-type: none"> - to remove material "Storage Container Polypouch" and "Protective Caps Plastic", - to add item "PWC05-054" and relevant data. Subtask number has been updated from "73-10-05-99E- 001" to "73-10-05-99E-008".
15004	Storage	<p>Revised paragraphs 1.(3).(a) to 1.(3).(e), i.e. was:</p> <p>"(a) Use dry low-pressure filtered-shop-air at 30 psig (207 kPag) and blow excess calibration fluid from the exterior of the fuel nozzle adapter assembly, leave fluid inside for lubrication.</p> <p>(b) Install protective caps and place in protective polypouch containers."</p>

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15006	Storage	Added Figure 15001.

Component Maintenance Manual

Manual Part No. 3053386

Fuel Nozzle Adapter (Simplex/Duplex)

(For all the applicable part numbers, refer to the INTRODUCTION)

Issued Jun 15/2005

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PRATT & WHITNEY CANADA
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COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

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**PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)**

RECORD OF REVISIONS

REV NO.	DATE OF REVISION	DATE INSERTED	BY	REV NO.	DATE OF REVISION	DATE INSERTED	BY
1	Feb 18/2011		P&WC				
2	Jun 28/2013		P&WC				
3	Apr 04/2014		P&WC				
4	Sep 29/2017		P&WC				
5	Jan 17/2020		P&WC				
6	Mar 10/2022		P&WC				

73-10-05 RECORD OF REVISIONS Jun 15/2005

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PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

LIST OF EFFECTIVE PAGES

<u>CHAPTER SECTION</u>	<u>PAGE</u>	<u>DATE</u>	<u>CHAPTER SECTION</u>	<u>PAGE</u>	<u>DATE</u>
Title Page		Mar 10/2022		1004	Mar 10/2022
				1005	Mar 10/2022
Record of Revisions		Jun 15/2005		1006	Mar 10/2022
				1007	Mar 10/2022
LEP	1	Mar 10/2022		1008	Mar 10/2022
	2	Mar 10/2022		1009	Mar 10/2022
	3	Mar 10/2022		1010	Mar 10/2022
	4 blank	Mar 10/2022		1011	Mar 10/2022
				1012	Mar 10/2022
Service Bulletin List	1	Apr 04/2014		1013	Mar 10/2022
	2 blank	Apr 04/2014		1014	Mar 10/2022
Contents	1	Mar 10/2022	Schematic and	2001	Jun 15/2005
	2	Mar 10/2022	Wiring	2002 blank	Jun 15/2005
	3	Mar 10/2022	Diagrams		
	4	Mar 10/2022			
	5	Mar 10/2022	Disassembly	3001	Sep 29/2017
	6	Mar 10/2022		3002	Sep 29/2017
				3003	Sep 29/2017
Introduction	1	Jan 17/2020		3004	Sep 29/2017
	2	Jan 17/2020		3005	Sep 29/2017
	3	Jan 17/2020		3006	Sep 29/2017
	4	Jan 17/2020		3007	Sep 29/2017
	5	Jan 17/2020		3008	Sep 29/2017
	6 blank	Jan 17/2020		3009	Sep 29/2017
				3010	Sep 29/2017
How to Use	1	Jan 17/2020		3011	Sep 29/2017
	2	Jan 17/2020		3012	Sep 29/2017
	3	Jan 17/2020		3013	Sep 29/2017
	4	Jan 17/2020		3014	Sep 29/2017
	5	Jan 17/2020			
	6 blank	Jan 17/2020	Cleaning	4001	Jan 17/2020
				4002	Jan 17/2020
Description and Operation	1	Sep 29/2017		4003	Jan 17/2020
	2	Sep 29/2017		4004	Jan 17/2020
	3	Sep 29/2017		4005	Jan 17/2020
	4	Sep 29/2017		4006	Jan 17/2020
	5	Sep 29/2017		4007	Jan 17/2020
	6	Sep 29/2017		4008	Jan 17/2020
				4009	Jan 17/2020
Testing and Fault Isolation	1001	Mar 10/2022		4010	Jan 17/2020
	1002	Mar 10/2022		4011	Jan 17/2020
	1003	Mar 10/2022		4012	Jan 17/2020

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

LIST OF EFFECTIVE PAGES

<u>CHAPTER SECTION</u>	<u>PAGE</u>	<u>DATE</u>	<u>CHAPTER SECTION</u>	<u>PAGE</u>	<u>DATE</u>
Insp/Check	5001	Jan 17/2020	Special Tools, Fixtures and Equipment	9001	Jan 17/2020
	5002	Jan 17/2020		9002	Jan 17/2020
	5003	Jan 17/2020		9003	Jan 17/2020
	5004	Jan 17/2020		9004	Jan 17/2020
	5005	Jan 17/2020		9005	Jan 17/2020
	5006	Jan 17/2020		9006	Jan 17/2020
	5007	Jan 17/2020		9007	Jan 17/2020
	5008	Jan 17/2020		9008 blank	Jan 17/2020
	5009	Jan 17/2020			
	5010	Jan 17/2020	Illustrated Parts List	10001	Sep 29/2017
	5011	Jan 17/2020		10002	Sep 29/2017
	5012	Jan 17/2020		10003	Sep 29/2017
	5013	Jan 17/2020		10004	Sep 29/2017
	5014 blank	Jan 17/2020		10005	Sep 29/2017
		10006		Sep 29/2017	
Repair	6001	Jan 17/2020		10007	Sep 29/2017
	6002	Jan 17/2020		10008	Sep 29/2017
	6003	Jan 17/2020		10009	Sep 29/2017
	6004	Jan 17/2020		10010	Sep 29/2017
	6005	Jan 17/2020			
	6006	Jan 17/2020	Special Procedures	11001	Jun 15/2005
	6007	Jan 17/2020		11002 blank	Jun 15/2005
	6008 blank	Jan 17/2020			
Assembly	7001	Sep 29/2017	Removal	12001	Jun 15/2005
	7002	Sep 29/2017		12002 blank	Jun 15/2005
	7003	Sep 29/2017			
	7004	Sep 29/2017			
	7005	Sep 29/2017	Installation	13001	Jun 15/2005
	7006	Sep 29/2017		13002 blank	Jun 15/2005
	7007	Sep 29/2017			
	7008	Sep 29/2017			
	7009	Sep 29/2017	Servicing	14001	Jun 15/2005
	7010	Sep 29/2017		14002 blank	Jun 15/2005
	7011	Sep 29/2017			
	7012	Sep 29/2017			
	7013	Sep 29/2017	Storage	15001	Mar 10/2022
	7014	Sep 29/2017		15002	Mar 10/2022
	7015	Sep 29/2017		15003	Mar 10/2022
	7016 blank	Sep 29/2017		15004	Mar 10/2022
Fits and Clearances	8001	Jun 15/2005		15005	Mar 10/2022
	8002 blank	Jun 15/2005		15006 blank	Mar 10/2022

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

LIST OF EFFECTIVE PAGES

<u>CHAPTER SECTION</u>	<u>PAGE</u>	<u>DATE</u>
Rework	16001	Jun 15/2005
Procedures	16002 blank	Jun 15/2005
Appendix	17001	Jun 15/2005
	17002 blank	Jun 15/2005

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

Service Bulletin No.	Rev. No.	Title	Date of Issue
3053386-73-01R1	1	Fuel Nozzle Adapters - Modification of	Jan 16/2012

EFF: ALL

73-10-05
COMPONENT SERVICE BULLETIN LIST

Page 1/2
Apr 04/2014

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PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TABLE OF CONTENTS

<u>TITLE</u>	<u>PAGE</u>	<u>EFF</u>
TITLE PAGE		
RECORD OF REVISIONS		
Component Service Bulletin List		
INTRODUCTION		
Task 73-10-05-99F-801		
1. Introduction	1	
A. General	1	ALL
B. Manual Format	1	ALL
C. Customer Support Services	2	ALL
D. Pratt & Whitney Component Solutions Inc.	2	ALL
E. Supplementary Publications	2	ALL
F. Function of the Component Maintenance Manual	3	ALL
G. Safety	3	ALL
H. Abbreviations	3	ALL
I. Weights and Measures	5	ALL
HOW TO USE		
Task 73-10-05-99G-801		
1. How-to-Use	1	
A. General	1	ALL
B. Manual Numbering System	1	ALL
C. Page Footer	1	ALL
D. Component Effectivity	1	ALL
E. Pageblock Titles and Numbers	3	ALL
F. Task Numbering System	3	ALL
DESCRIPTION AND OPERATION		
Task 73-10-05-870-801		
1. Description and Operation	1	
Subtask 73-10-05-870-001-A00		
A. Description - Duplex Fuel Nozzle	1	ALL
Subtask 73-10-05-870-002-A00		
B. Operation	1	ALL
Subtask 73-10-05-870-001-B00		
C. Description - Simplex Fuel Nozzle	1	ALL
Subtask 73-10-05-870-002-B00		
D. Operation - Simplex Fuel Nozzle	4	ALL
TESTING AND FAULT ISOLATION		
Task 73-10-05-99F-801		
1. General/Introduction	1001	
B. Job Set-Up Information	1001	ALL

73-10-05 CONTENTS

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TABLE OF CONTENTS

<u>TITLE</u>	<u>PAGE</u>	<u>EFF</u>
TESTING AND FAULT ISOLATION (Cont'd)		
Task 73-10-05-99F-801		
1. General/Introduction (Cont'd)		
Subtask 73-10-05-94A-001		
Subtask 73-10-05-94C-001		
Subtask 73-10-05-99E-001		
C. Job Set-Up	1002	ALL
Subtask 73-10-05-490-001		
Subtask 73-10-05-830-001		
Subtask 73-10-05-490-002		
Task 73-10-05-700-801		
2. Functional Test	1007	
A. General	1007	ALL
B. Procedure	1007	ALL
Subtask 73-10-05-730-001		
Subtask 73-10-05-730-002		
Subtask 73-10-05-790-001		
SCHEMATIC AND WIRING DIAGRAMS		
NOT APPLICABLE		
DISASSEMBLY		
Task 73-10-05-99F-801		
1. General / Introduction	3001	
Task 73-10-05-060-801		
2. Disassembly of the Fuel Nozzle Adapter Assembly	3003	
A. General	3003	ALL
B. Job Set-Up Information	3003	ALL
Subtask 73-10-05-94A-002		
Subtask 73-10-05-94B-001		
Subtask 73-10-05-94D-001		
Subtask 73-10-05-99E-002		
C. Procedure	3004	ALL

73-10-05 CONTENTS

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TABLE OF CONTENTS

<u>TITLE</u>	<u>PAGE</u>	<u>EFF</u>
DISASSEMBLY (Cont'd)		
Task 73-10-05-060-801		
2. Disassembly of the Fuel Nozzle Adapter Assembly (Cont'd)		
Subtask 73-10-05-060-001		
CLEANING		
Task 73-10-05-99F-801		
1. General / Introduction	4001	
Task 73-10-05-140-801		
2. Cleaning	4003	
A. General	4003	ALL
B. Job Set-Up Information	4003	ALL
Subtask 73-10-05-94A-003		
Subtask 73-10-05-94B-002		
Subtask 73-10-05-94C-002		
Subtask 73-10-05-94D-002		
Subtask 73-10-05-99E-003		
C. Job Set-Up	4005	ALL
Subtask 73-10-05-160-001		
D. Cleaning Procedure	4005	ALL
Subtask 73-10-05-140-001		
Subtask 73-10-05-130-001		
CHECK		
Task 73-10-05-99F-801		
1. General / Introduction	5001	
Task 73-10-05-220-801		
2. Inspection / Check of the Fuel Nozzle Adapter Assembly	5003	
A. General	5003	ALL
B. Job Set-Up Information	5004	ALL
Subtask 73-10-05-94C-003		
Subtask 73-10-05-99E-004		
C. Procedure	5004	ALL

73-10-05 CONTENTS

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TABLE OF CONTENTS

<u>TITLE</u>	<u>PAGE</u>	<u>EFF</u>
CHECK (Cont'd)		
Task 73-10-05-220-801		
2. Inspection / Check of the Fuel Nozzle Adapter Assembly (Cont'd)		
Subtask 73-10-05-220-001		
Subtask 73-10-05-220 -002		
Subtask 73-10-05-220 -003		
Subtask 73-10-05-220 -004		
Subtask 73-10-05-220-005-A00		
Subtask 73-10-05-220-006-B00		
REPAIR		
Task 73-10-05-99F-801		
1. General / Introduction	6001	
Task 73-10-05-300-801		
2. Repair of the Fuel Nozzle Adapter Assembly	6003	
A. General	6003	ALL
B. Job Set-Up Information	6004	ALL
Subtask 73-10-05-94A-004		
Subtask 73-10-05-94C-004		
Subtask 73-10-05-99E-005		
C. Procedure	6004	ALL
Subtask 73-10-05-350-001		
Subtask 73-10-05-350-002		
Subtask 73-10-05-350-003		
Subtask 73-10-05-350-004		
Subtask 73-10-05-350-005		
Subtask 73-10-05-350-006		
ASSEMBLY		
Task 73-10-05-99F-801		
1. General / Introduction	7001	
Task 73-10-05-460-801		
2. Assembly of the Fuel Nozzle Adapter (All Configs)	7003	
A. General	7003	ALL
B. Job Set-Up Information	7003	ALL

73-10-05 CONTENTS

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TABLE OF CONTENTS

<u>TITLE</u>	<u>PAGE</u>	<u>EFF</u>
ASSEMBLY (Cont'd)		
Task 73-10-05-460-801		
2. Assembly of the Fuel Nozzle Adapter (All Configs) (Cont'd)		
Subtask 73-10-05-94A-005		
Subtask 73-10-05-94B-003		
Subtask 73-10-05-99E-006		
C.Procedure	7004	
Subtask 73-10-05-470-001-A01		
Subtask 73-10-05-470-002-A01		
Subtask 73-10-05-470-003-A01		
Subtask 73-10-05-470-001-B01		
Subtask 73-10-05-470-002-B01		
Subtask 73-10-05-470-003-B01		
FITS AND CLEARANCES		
NOT APPLICABLE		
TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLES		
Task 73-21-04-99F-801		
1. General / Introduction	9001	
Task 73-10-05-99E-801		
2. Special Tools, Fixtures, Equipment and Consumables	9003	
A. General/Introduction	9003	ALL
B. Job Set-up Information	9004	ALL
Subtask 73-10-05-94A-006		
Subtask 73-10-05-94B-004		
Subtask 73-10-05-94C-005		
Subtask 73-10-05-94D-003		
Subtask 73-10-05-99A-002		
Subtask 73-10-05-99E-007		
ILLUSTRATED PARTS LIST		
Task 73-10-05-950-801		
1. Introduction	10001	
A. General	10001	ALL
B. Equipment Designator Index	10001	ALL
C. Numerical Index	10001	ALL

73-10-05 CONTENTS

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TABLE OF CONTENTS

<u>TITLE</u>	<u>PAGE</u>	<u>EFF</u>
ILLUSTRATED PARTS LIST (Cont'd)		
Task 73-10-05-950-801		
1. Introduction (Cont'd)		
D. Alternate Vendor Index	10001	ALL
E. Part Numbering System	10001	ALL
F. Effectivity	10002	ALL
G. Units Per Assembly	10002	ALL
H. List of Applicable Part Numbers and Figures	10002	ALL
SPECIAL PROCEDURES		
NOT APPLICABLE		
REMOVAL		
NOT APPLICABLE		
INSTALLATION		
NOT APPLICABLE		
SERVICING		
NOT APPLICABLE		
STORAGE		
Task 73-10-05-99F-801		
1. General / Introduction	15001	
Task 73-10-05-550-801		
2. Storage	15003	
A. General	15003	ALL
B. Job Set-Up Information	15003	ALL
Subtask 73-10-05-94A-008		
Subtask 73-10-05-99E-008		
Subtask 73-10-05-550-001		
REWORK PROCEDURES		
NOT APPLICABLE		
APPENDIX		
NOT APPLICABLE		

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

INTRODUCTION

Task 73-10-05-99F-801

1. Introduction

A. General

- (1) This manual gives you the maintenance instructions for the Fuel Nozzle Adapters. These components are used on several different P&WC Engines.
- (2) Use your part number to find the applicable engine model series, and configuration code (Refer to Table 1).

TABLE 1, Part Number, Engine Model/Series and Configuration
(Task 73-10-05-99F-801)

Part Number	Engine Model/Series	Configuration
3058617-01	PT6B-67A PT6C-67C PT6C-67D	A01
3058932-01	PT6C-67D	B03
3059126-01	PT6B-67A PT6C-67C	B01
3073974-01	PT6C-67A PT6C-67C PT6C-67E	B02
3073976-01	PT6C-67A PT6C-67C PT6C-67E	A02

NOTE: This information is provided for reference only. For data on the correct applicability of the part number to an engine model(s), refer to the respective engine Illustrated Parts Catalog (IPC).

- (3) To re-service a fuel nozzle adapter and stem, you must do the full tasks as defined in this manual for Disassembly, Cleaning, Check, Repair (where required and permitted), Assembly and Testing.
- (4) To overhaul a fuel nozzle adapter and stem, you must do the full tasks as defined in this manual for the refurbishing of the flow divider valve. Refurbishing instructions of the flow divider valve are not included in this manual and can only be done by returning the component to Pratt and Whitney Canada Corp. (00198).

NOTE: A complete fuel nozzle adapter and stem overhaul is required under the following conditions: 1. The part does not pass all the flow test requirements after cleaning (Refer to Testing and Fault Isolation section). 2. The part is damaged beyond repairable limits (Refer to Check and Repair sections). 3. The part has excessive varnish or discoloration at the inlet and screen areas (Refer to Check section for basic criteria).

B. Manual Format

- (1) This manual is prepared per ATA Specification No. 2200, which is prepared by the Air Transportation Association (ATA) of America.

EFF: ALL

73-10-05
INTRODUCTION

Page 1
Jan 17/2020

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

INTRODUCTION

- (2) This manual uses the Maintenance Task Oriented Support System (MTOSS). This system permits the use of Electronic Data Processing (EDP) of maintenance data.
- (3) This manual is written in Simplified English (SE) per the Association Europeenne des Constructeurs de Materiel Aerospatial (AECMA) Simplified English document, Change No. 5 (No. PSC85-16598), which is prepared by the AECMA.

C. Customer Support Services

- (1) Customer Support representatives know about the latest maintenance procedures because they, on request, review hardware from operators and service center personnel. They are available to analyze the problem. For the necessary help and/or support, direct your requests to:

Pratt & Whitney Canada Corp. (CAGE 00198)

1000 Marie-Victorin

Longueuil, Quebec

Canada J4G 1A1

OR

Customer Help Desk (24-hour service)

US and Canada: 1-800-268-8000

International: (450) 647-8000

Fax: (450) 647-2888

Email: cfirst@pwc.ca

D. Pratt & Whitney Component Solutions Inc.

- (1) You can send an accessory for repair or complete overhaul to the following address:

Pratt & Whitney Component Solutions Inc.

4905 Stariha Drive

Muskegon, MI 49441

Attention: Sales Department

Tel: 1 (800) 872-1792 or 1 (231) 799-6650

Fax: 1 (231) 799-8732

E-mail: spares@pwc.ca

E. Supplementary Publications

- (1) The publications which follow are also necessary for the correct maintenance or overhaul of the component.

(a) PWA Standard Practices Manual (SPM) (P/N 585005):

- 1 This manual contains approved and recommended standard practices and instructions frequently used for different engines made by Pratt & Whitney.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

INTRODUCTION

(b) P&WC Consumable Materials List (CML) (P/N 3043340):

- 1 This list contains data about consumable materials used in this manual. All consumable materials have a different number. In this CMM, where there is a reference to a consumable material, the material name is followed by the item number in parentheses (eg: engine oil (PWC03-001)). Unless differently specified, you can use the alternative material given in the PWC CML which is shown by letter suffix (eg: PWC03-001A). If you must use the basic item number material, an asterisk is shown at the end of the number (eg: PWC03-001*).
- 2 For more data on that consumable material, refer to the PWC item number in the P&WC CML. The PWC item numbers are internal to P&WC and provide a cross-reference between the CML and other P&WC publications. When buying products, customers should use the trade names, the specifications and the standards of the consumable materials.

F. Function of the Component Maintenance Manual

- (1) There are two types of CMMs; the full CMM and the abbreviated CMM (ACMM). These manuals contain the maintenance and overhaul instructions and the illustrated parts list (if applicable) for the accessories supplied by Pratt & Whitney Canada.
 - (a) The full CMM is necessary when you do a complete overhaul of an accessory. If you can take apart the accessory, then the full CMM must include an illustrated parts list. If you cannot take apart the accessory, then the CMM does not include an illustrated parts list.
 - (b) The abbreviated CMM (ACMM) is necessary only when you do a check or a test on an accessory that you cannot take apart.

G. Safety

- (1) This manual contains procedures that use chemicals, solvents, paints and other available material. You must read the Material Safety Data Sheets (MSDS) (Occupational Safety and Health Act (OSHA) Form 20 or equivalent) before you use these materials. Some materials can be dangerous. The data sheets are available from the manufacturers or the suppliers of these materials.

H. Abbreviations

- (1) In this manual, a minimum number of abbreviations are used. Abbreviations are used if they are in general use or if they help to make the best use of the available area on a page. Refer to Table 2 for the list of general abbreviations, that are specific to P&WC and used in this manual. Refer to the Specifications which follow for additional abbreviations not found in the tables.

(a) Specifications

- Abbreviations, ASME Y14.38a-2002

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

INTRODUCTION

TABLE 2, List of General Abbreviations
(Task 73-10-05-99F-801)

ABBREVIATION	NAME
ACMM	Abbreviated Component Maintenance Manual
AMS	Aerospace Material Specification
ATA	Air Transport Association
CL	Class
CMM	Component Maintenance Manual
DEL	Delta
FIR	Full Indicator Reading
Imp.	Imperial
IND	Indicator
IPC	Illustrated Parts Catalog
IPL	Illustrated Parts List
MTOSS	Maintenance Task Oriented Support System
LOP	Low Oil-pressure
LP	Low-pressure
LRU	Line Replaceable Unit
Man.	Manual
min.	Minute(s)
N/A	Not Applicable
P&WC	Pratt and Whitney Canada
P/N	Part Number
Pd	Pressure Differential
pph	Pounds Per Hour
PWA	Pratt and Whitney Aircraft
PWC	Pratt and Whitney Canada Tooling/ Consumables Prefix
SPM	Standard Practices Manual
SPOP	Service Process Operation Procedure
TBA	To Be Advised
TBD	To Be Determined
VAC	Volt(s), Alternating Current
VDC	Volt(s), Direct Current
W	Watt(s)

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

INTRODUCTION

I. Weights and Measures

- (1) The weight and measure units are given in Imperial and SI (System International metric system) units. The Imperial units are given first, followed by the equivalent SI units in parentheses. If there is a difference between the value of an Imperial unit and that value converted to an SI unit, always use the Imperial value. Refer to Table 3 for the list of general abbreviations or symbols, which are applicable for weights and measures.

TABLE 3, Abbreviations and Symbols for Weights and Measures
(Task 73-10-05-99F-801)

IMPERIAL UNITS		SI UNITS	
SYMBOL	NAME	SYMBOL	NAME
°F	Degree Fahrenheit	°C	Degree Celsius
Ft	Foot	m	Meter
Gal	Gallon	l	Liter
hr	hour	g.mm	Gram-Millimeter
in.	Inch	cm	Centimeter
		mm	Millimeter
in ²	Square Inch	cm ²	Square Centimeter
		mm ²	Square Millimeter
in ³	Cubic Inch	cm ³	Cubic Centimeter
		mm ³	Cubic Millimeter
in. H ₂ O	Inches of water	Pa	Pascal
in. Hg	Inches of Mercury	Pa	Pascal
lb.	Pound	kg	Kilogram
lb/ft ²	Pound/Square Foot	Pa	Pascal
lb/gal	Pound/Gallon	kg/m ³	Kilogram/Cubic Meter
lb/in ² (psia)	Pound/Square Inch	kPa	KiloPascal
oz	Ounce (Fluid)	ml	Milliliter
oz	Ounce (Weight)	g	Gram
oz/gal	Ounce/Gallon	kg/m ³	Kilogram/Cubic Meter
psid	Pound/square inch Delta	kPad	KiloPascal Delta
psig	Pound/square inch Gage	kPag	KiloPascal Gage
pph	Pound/hour	kg/min.	Kilogram/minute
ppm	Parts per million	µg/1	Microgram per unit

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

HOW TO USE

Task 73-10-05-99G-801

1. How-to-Use

A. General

- (1) This section explains the organization of the manual and also gives some guidelines to help the user to find data. This manual gives specific data for the component only.

B. Manual Numbering System

- (1) The manual numbering system uses the Air Transport Association (ATA) generic structure. The structure follows an industry-wide set of standards described in the ATA 2200 specifications.
 - (a) The first three paired elements correspond to the ATA, Chapter, Section and Subject and uniquely identify hardware components. The first two digits refer to the chapter and deal with different systems. The next paired of digits refer to a section within the chapter and the last two digits refer to a subject within the section to separate components. The remaining elements refer to maintenance tasks or subtasks. Table 1 that follows shows the generic structure of the numbering system:

TABLE 1, Numbering System
(Task 73-10-05-99G-801)

Description	Assigned by ATA	Assigned by Manufacturer	
Chapter (First Element)	73		
Section (Second Element)	1	0	
Subject (Third Element)		05	
Function (Fourth Element)			870
Sequence (Fifth Element)			801
	Hardware Identification		Task Identification

C. Page Footer (Refer to Figure 1)

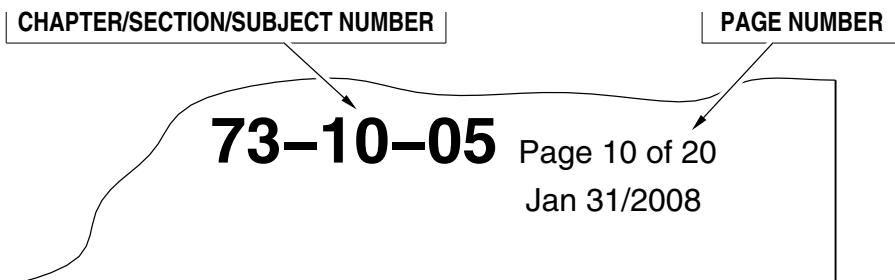
- (1) To the left of the page, the footer contains the component configuration effectivity letter.
- (2) To the right of the page, the footer contains the Chapter/Section/Subject number, function title, page block number and page revision date.

D. Component Effectivity

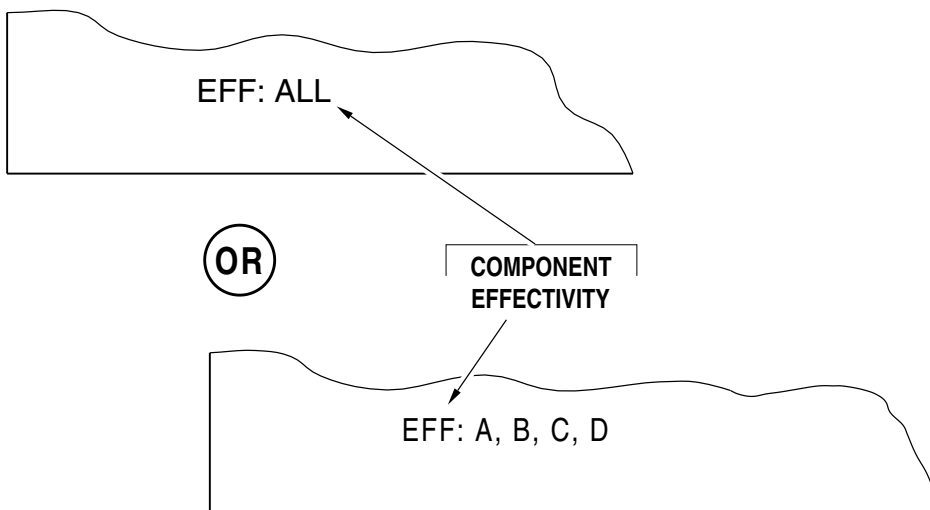
- (1) The component effectivity for this manual is determined by the part number and given in the Introduction section.
 - (a) Manual sections applicable to all of the components given in the Introduction section have an effectivity in the page footer that reads:

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

HOW TO USE



TYPICAL PAGE FOOTER (RIGHT-HAND SIDE)



TYPICAL PAGE FOOTER (LEFT-HAND SIDE)

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Page Footer
Figure 1

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73-10-05 Page 2
HOW TO USE Jan 17/2020

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

HOW TO USE

EFF: ALL

- (b) Manual sections applicable to specific component part numbers, are identified with an effectivity letter in the page footer as follows:

EFF: A : for a single configuration.

EFF: A, B, C : for multiple configuration.

E. Pageblock Titles and Numbers

- (1) The separation of data in this manual is identified by a pageblock title and a pageblock number. These identifiers are located at the lower right area of each page. Pageblock titles are also printed in the heading on each page. Most functional sections are also divided (Check-01, Check-02, etc.) for specific tasks in a pageblock.
- (2) The function titles and the related pageblock numbers are divided as follows:

TABLE 2, Pageblock Titles and Numbers
(Task 73-10-05-99G-801)

Pageblock Titles	Pageblock Numbers
Description and Operation	001 to 999
Testing and Fault Isolation	1001 to 1999
Schematics and Wiring Diagrams	2001 to 2999
Disassembly	3001 to 3999
Cleaning	4001 to 4999
Check	5001 to 5999
Repair	6001 to 6999
Assembly	7001 to 7999
Fits and Clearances	8001 to 8999
Special Tools, Fixtures, Equipment and Consumables	9001 to 9999
Illustrated Parts List	10001 to 10999
Special Procedures	11001 to 11999
Removal	12001 to 12999
Installation	13001 to 13999
Servicing	14001 to 14999
Storage (Including Transportation)	15001 to 15999
Rework (SB Accomplishment)	16001 to 16999
Appendix	17001 to 17999

F. Task Numbering System (Refer to Figure 2)

- (1) The structure of this manual is controlled by the ATA specifications No. 2200. It uses the Maintenance Task Oriented Support System (MTOSS) which has task and subtask numbers for text, illustrations and tables. This system permits this manual to adapt to different technical publication systems that you use.

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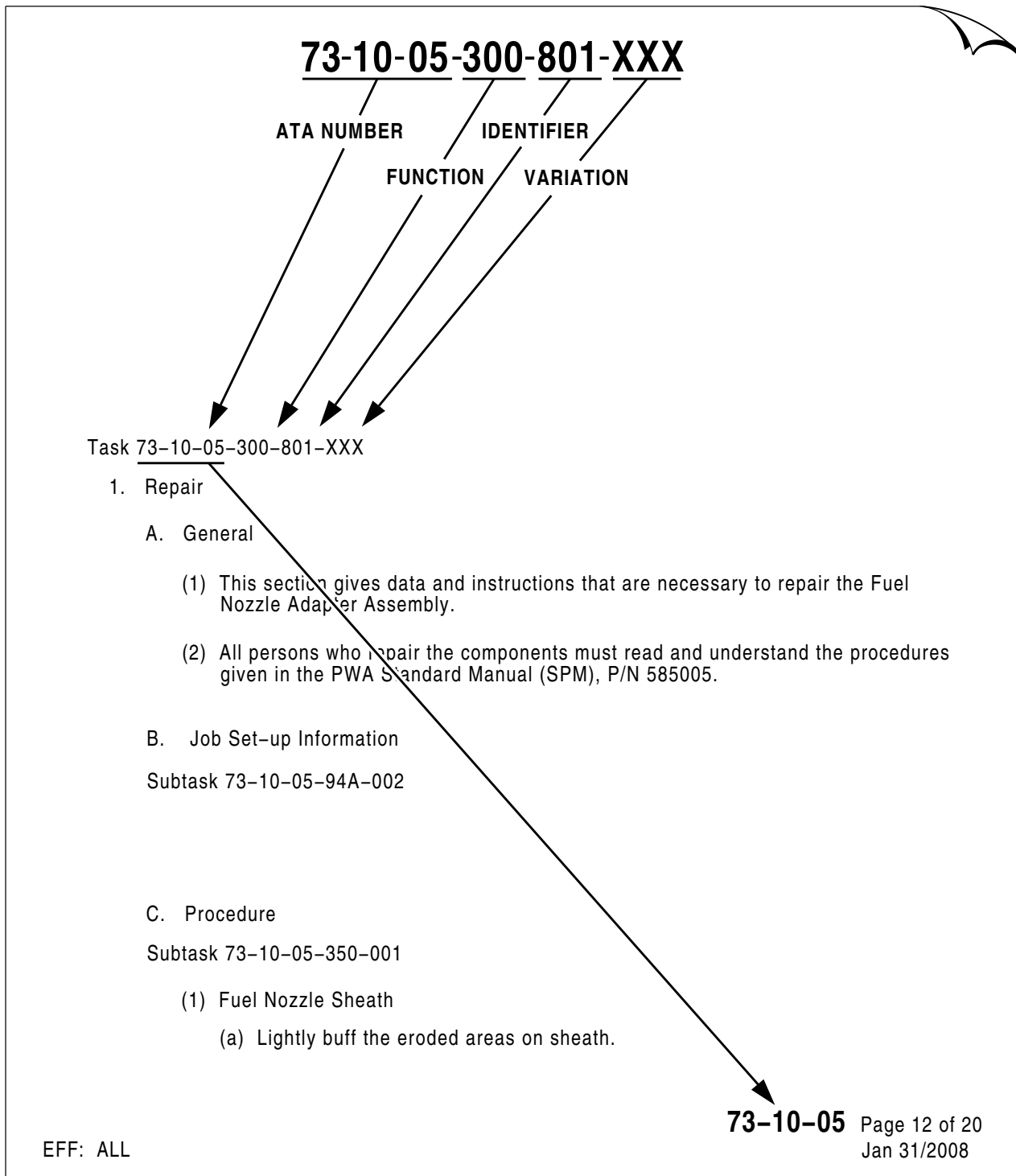
73-10-05

HOW TO USE

Page 3

Jan 17/2020

HOW TO USE



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Task/Subtask Numbering System
Figure 2

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

HOW TO USE

- (2) The task numbering system permits selection of data or cross-references because each task or subtask number is unique. The task/subtask numbers give an accurate point of reference that will not change with revisions to pages or paragraph numbers.
- (3) Each operation specified in this manual has a task number which is controlled by ATA Specification 2200 numbering system and the function of the data. The task number contains five (or six) elements. The first three of these elements are the ATA number and they give the Chapter/Section/Subject number.
- (4) The fourth element identifies the function (inspection, repair, test, etc.). The fifth element gives a different identification for each task/subtask in the function. Task identifiers, given in sequence, start at 801 and subtask identifiers start at 001. A sixth element is given, if necessary, to identify the differences in configuration or the differences of method from the initial task (refer to Table 1).
- (5) Subtask numbers are also given to steps in the task. This permits identification of changes in functions, work stations or area of the part in a task. For example, a repair can include machining, brazing, surface treatment, etc..., procedures. Subtask numbers are given, as necessary, to each text unit to show the function change.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

DESCRIPTION AND OPERATION

Task 73-10-05-870-801

1. Description and Operation

Subtask 73-10-05-870-001-A00

A. Description - Duplex Fuel Nozzle (Refer to Figure 1)

- (1) Each nozzle assembly consists of a housing assembly (10), locking washer (60), stem support, sheath (100), spray tip assembly (20), strainer body and strainer, and a valve assembly. The housing assembly supplies primary and secondary fuel to its own spray tip via fuel passages through the valve assembly and passages within the stem support, which supports the spray tip in the proper position. Primary fuel is metered through a distributor and orifice cone and the secondary is metered through tangential holes in the swirler.
- (2) A sheath surrounds the stem support and spray tip and protects the inner parts from excessive heating during engine operation. The sheath, held in place with a retaining ring (80), also provides the proper mechanical "fit up" with the combustion chamber.
- (3) The spray tip assembly is threaded onto the stem support (10) and is locked into position with a locking washer. The stem support is brazed into the housing and the valve assembly is locked into position with a locking cap that is welded to the housing.
- (4) The fuel strainer purpose is to prevent contaminants from entering the valve assembly and then the primary and secondary portions of the spray tip assembly.

Subtask 73-10-05-870-002-A00

B. Operation

- (1) Fuel is supplied under pressure to the fuel inlet of the housing assembly and is routed through a strainer and internal passages to the valve assembly. From the valve assembly the primary fuel is directed to the passage that connects to the distributor and the orifice cone and exits out the orifice cone as a conical spray.
- (2) At a certain pressure point the piston and valve crack open to allow fuel to flow to the secondary internal passages and directly to the tip assembly. The fuel continues through the spin passages of the fuel swirler where it emerges as a conical sheet and is hit with swirling high velocity air which shreds the fuel sheet and breaks it up into droplets.

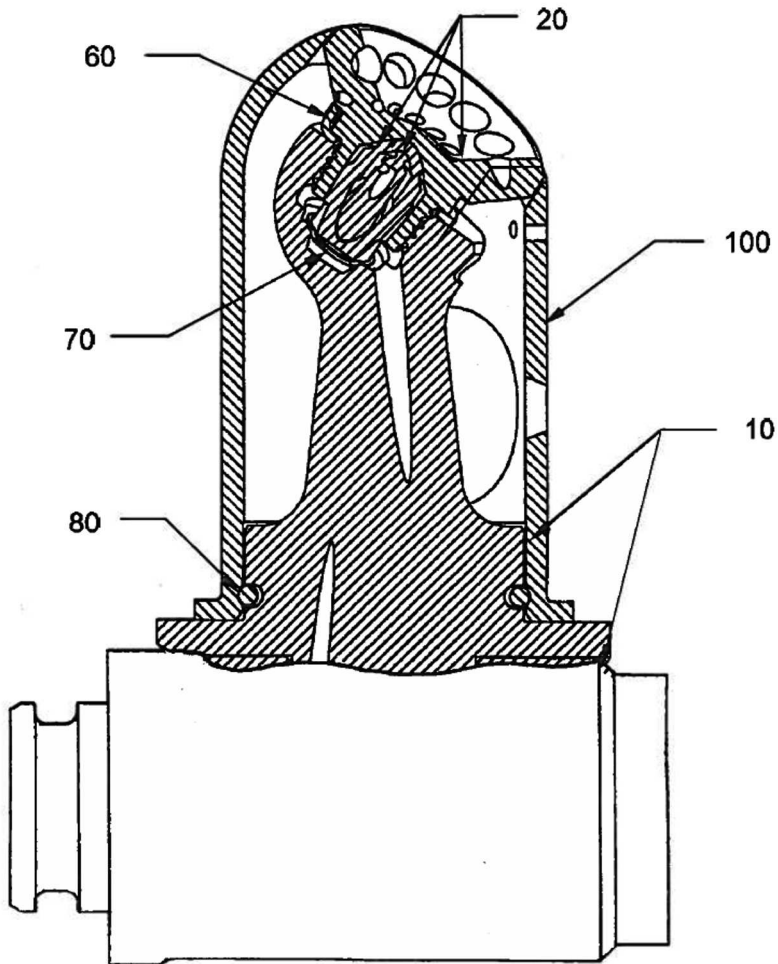
Subtask 73-10-05-870-001-B00

C. Description - Simplex Fuel Nozzle (Refer to Figure 2)

- (1) Each nozzle assembly consists of a fuel nozzle and stem, (10), locking washer (50), spray tip assembly (20), strainer, and a valve assembly. The housing assembly supplies fuel to its' own spray tip via fuel passages through the valve assembly and passages within the stem support, which supports the spray tip in the proper position. Fuel is metered through a fuel swirler and exits through the orifice of the swirler.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

DESCRIPTION AND OPERATION



Nozzle Assembly

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Description and Operation - Duplex Fuel Nozzle
Figure 1 (Sheet 1 of 2)

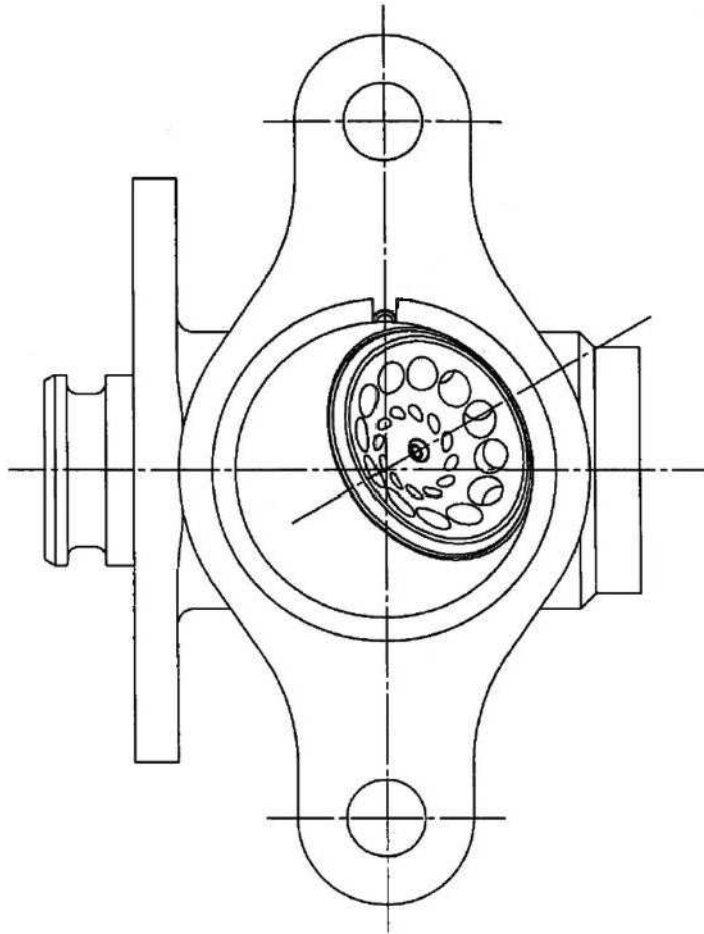
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73-10-05 Page 2
DESCRIPTION AND OPERATION Sep 29/2017

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The export control classification with respect to this document is contained on the back of the title page.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

DESCRIPTION AND OPERATION



NOZZLE ASSEMBLY

ICN-00198-G000009757-001-01

Description and Operation - Duplex Fuel Nozzle
Figure 1 (Sheet 2)

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73-10-05 Page 3
DESCRIPTION AND OPERATION Sep 29/2017

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

DESCRIPTION AND OPERATION

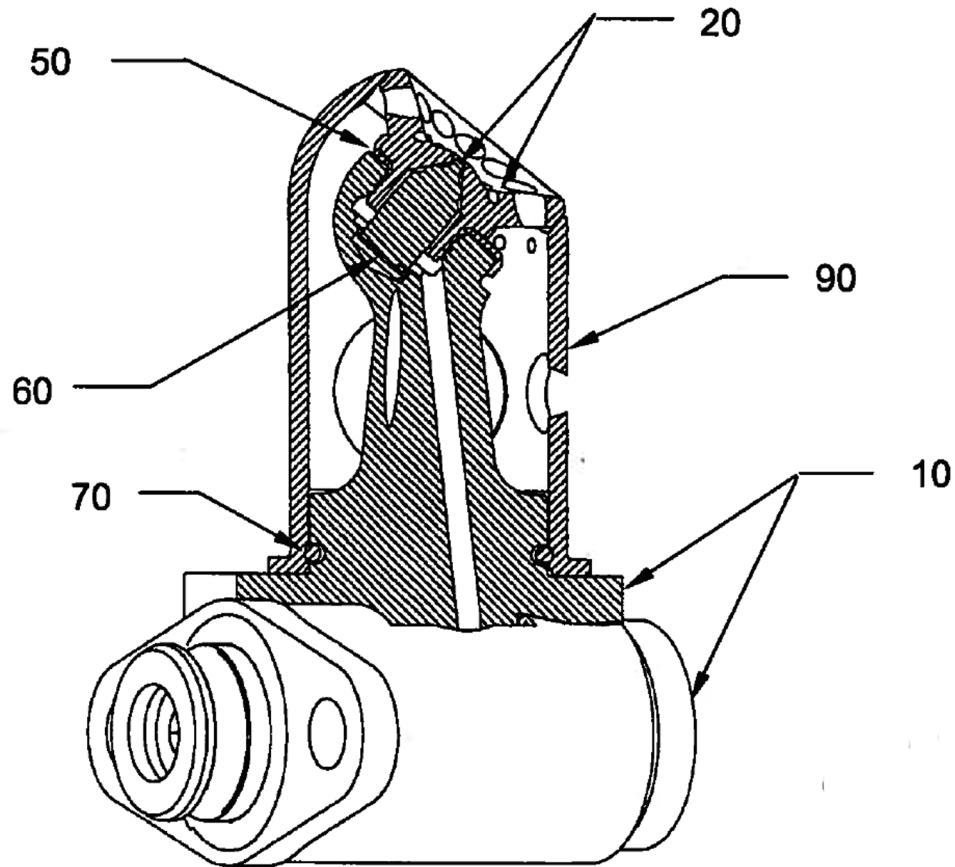
- (2) A sheath surrounds the stem support and spray tip and protects the inner parts from excessive heating during engine operation. The sheath (90), held in place with a retaining ring (70), also provides the proper mechanical “fit up” with the combustion chamber.
- (3) The spray tip assembly is threaded onto the stem support (10) and is locked into position with a locking washer. The stem support is brazed into the housing and the valve assembly is locked into position with a locking cap that is welded to the housing.
- (4) The fuel strainer purpose is to prevent contaminants from entering the valve assembly and then the spray tip assembly.

Subtask 73-10-05-870-002-B00

D. Operation - Simplex Fuel Nozzle

- (1) At a certain pressure point the piston and valve crack open to allow fuel to flow to the internal passages and directly to the tip assembly. The fuel continues through the spin passages of the fuel swirler where it emerges as a conical sheet and is hit with swirling high velocity air which shreds the fuel sheet and breaks it up into droplets.

DESCRIPTION AND OPERATION



Nozzle Assembly

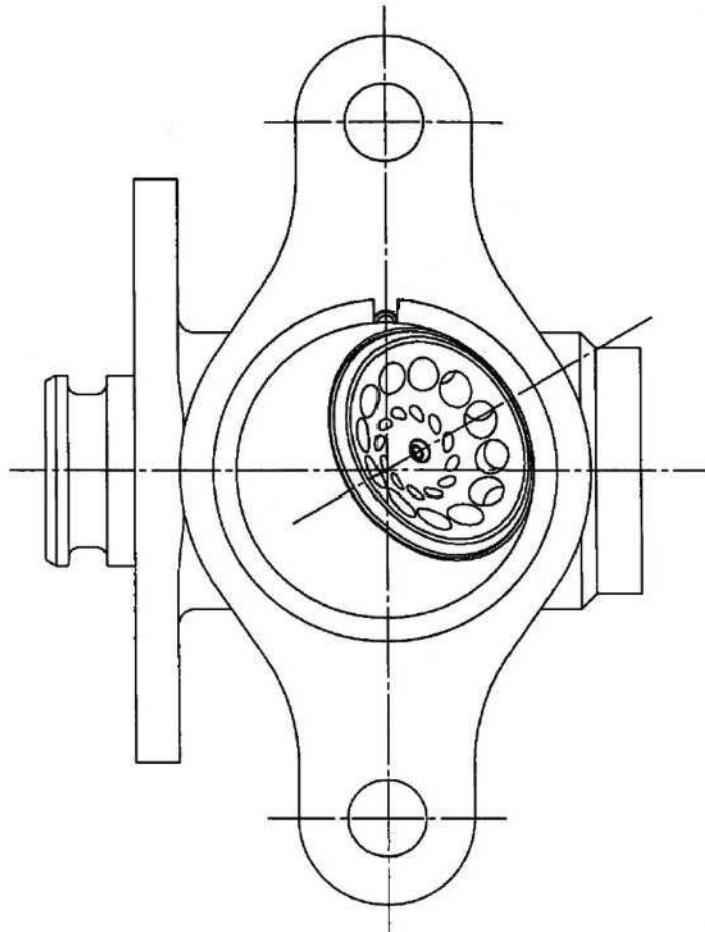
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Description and Operation - Simplex Fuel Nozzle
Figure 2 (Sheet 1 of 2)

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COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

DESCRIPTION AND OPERATION



NOZZLE ASSEMBLY

ICN-00198-G000009754-001-01

Description and Operation - Simplex Fuel Nozzle
Figure 2 (Sheet 2)

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73-10-05 Page 6
DESCRIPTION AND OPERATION Sep 29/2017

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TESTING AND FAULT ISOLATION

Task 73-10-05-99F-801

1. General/Introduction

- A. This page block gives you the necessary data to do several tests and to isolate the faults for the Fuel Nozzle Adapter Assembly. Refer to Table 1001, Related Tasks.

TABLE 1001, Related Tasks
(Task 73-10-05-99F-801)

Task Title(s)	Task(s)
Functional Test	Task 73-10-05-700-801

B. Job Set-Up Information

Subtask 73-10-05-94A-001

(1) Consumables

TABLE 1002, Consumables
(Task 73-10-05-99F-801)

Item Number	Material	Source (CML Code)
PWC03-002	Fluid, Calibrating MIL-PRF-7024 Type II	Local Purchase (A0001)

NOTE: You can use equivalent substitutes for the consumables that show in this table.

Subtask 73-10-05-94C-001

(2) Fixtures/Test Equipment

TABLE 1003, Fixtures
(Task 73-10-05-99F-801)

Part Number	Name	Source (CAGE Code)
Not Applicable	Base, Fuel Nozzle Flow Test	CEL Aerospace Test Equipment Ltd. (3AS79)
PWC71086	Flow Test Fixture, Fuel Nozzle	Pratt & Whitney Canada Corp. (00198)
PWC72324	Fixture, Pressure Leak (Fuel Nozzles)	
PWC72520	Adapter, Fuel Nozzle Flow Test	

NOTE: You can use equivalent substitutes for the fixtures that show in this table.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TESTING AND FAULT ISOLATION

TABLE 1004, Test Equipment
(Task 73-10-05-99F-801)

Part Number	Name	Source (CAGE Code)
CEL 30119-1-67C	Master Orifice Set	CEL Aerospace Test Equipment Ltd. (3AS79)
CEL 30119-2	Optical Telescope	
CEL 50200-2	Test Stand	

NOTE: You can use equivalent substitutes for the test equipment that show in this table.

TABLE 1005, Slave Parts
(Task 73-10-05-99F-801)

Item Number	Material	Source (CAGE Code)
AS3209-13	Packing	Pratt & Whitney Canada Corp. (00198)

Subtask 73-10-05-99E-001

(3) References

TABLE 1006, References
(Task 73-10-05-99F-801)

Reference	Manual Part Number
PWC Consumable Materials List (CML)	3043340

C. Job Set-Up

Subtask 73-10-05-490-001

(1) Set-Up the Test Stand (Refer to Figure 1001)

CAUTION: MAKE SURE YOU KEEP THE TEMPERATURE OF THE CALIBRATION FLUID (PWC03-002) AT THE REQUIRED TEMPERATURE. IF YOU DO NOT OBEY, YOU CAN GET RESULTS THAT ARE NOT ACCURATE.

(a) Set the temperature of the calibration fluid (PWC03-002) at 25.6 to 27.8 °C (78-82 °F) and maintain it.

Subtask 73-10-05-830-001

(2) Rig the Test Stand

(a) Rig the test stand. For the intervals and the required maintenance procedures, refer to Table 1007.

73-10-05

TESTING AND FAULT ISOLATION

Page 1002
Mar 10/2022

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PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TESTING AND FAULT ISOLATION

TABLE 1007, Intervals and Required Maintenance Procedures for the Test Stand
(Task 73-10-05-99F-801)

Interval	Required Maintenance Procedure
One time a day	Calculate the Correction Factor (CF) for the Fluid Flow Rate
One time a week	Clean the Master Orifice Set
	Do a Specific Gravity Check of the Calibration Fluid
One time every six months	Do a Check of the Accuracy of the Master Orifice Set
One time a year	Calibrate the Master Orifice Set

(b) Calculate the Correction Factor (CF) for the Fluid Flow Rate as follows:

- 1 For each master orifice that fits in the flowmeter range, use the master orifice set (CEL 30119-1-67C) and do a flow check to get the correction factor (CF) as follows:
 - a Connect the master orifice (a part of the master orifice set (CEL 30119-1-67C)) to the outlet of the fluid hose.
 - b Make sure the temperature of the calibrating fluid is 25.6 to 27.8 °C (78-82 °F). Apply 100 Psig (690 kPag) to the outlet of the fluid hose.
 - c Measure the fluid flow rate and make a record. For example, the fluid flow rate is 7.89 pph (3.57 kg/h).
 - d Look for the fluid flow rate that is identified on the master orifice: for example, 7.84 pph (3.55 kg/h).
 - e To calculate the correction factor (CF), divide the value that shows on the master orifice by your fluid flow rate. Make a record of the correction factor (CF) for the day. For example :
$$CF = \text{Master Orifice Value} / \text{Fluid Flow Rate}$$

$$CF = 7.84 / 7.89$$

$$CF = 0.994$$
 - f Make sure that the correction factor (CF) is within 3% of the fluid flow rate of the Master Orifice (that is, the CF has a value that is more than 0.970). If the correction factor (CF) is more than 3% of the fluid flow rate of the Master Orifice (that is, if the CF has a value that is less than 0.970), then isolate the faults in the test stand.

(c) Clean the Master Orifice Set

- 1 One time a week, use a mild soap solution and clean the master orifice set (CEL 30119-1-67C).

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TESTING AND FAULT ISOLATION

- (d) Also, do a Specific Gravity Check of the calibration fluid

CAUTION: MAKE SURE THAT THE CALIBRATION FLUID (PWC03-002) AGREES WITH THE SPECIFICATIONS OF THE MANUFACTURER.

- 1 One time a week, do a check of the specific gravity of the calibration fluid (PWC03-002). Make sure that the specific gravity of the calibration fluid (PWC03-002) agrees with the specifications of the manufacturer.
- 2 When the calibration fluid (PWC03-002) does not agree with the specifications of the manufacturer, then change the calibration fluid (PWC03-002).

- (e) Do a Check of the Accuracy of the Master Orifice Set

- 1 One time every six months, do a flow check to make sure of the accuracy of the master orifice set (CEL 30119-1-67C).

- (f) Calibrate the Master Orifice Set

CAUTION: ONE TIME A YEAR, CALIBRATE THE MASTER ORIFICE SET TO A NATIONAL STANDARD. THIS MAKES SURE THAT YOU KEEP THE ACCURACY OF THE MASTER ORIFICE SET.

- 1 One time a year, calibrate the master orifice set (CEL 30119-1-67C). Make sure that you keep the accuracy of the master orifice set (CEL 30119-1-67C) to a national standard.

Subtask 73-10-05-490-002

- (3) Set-Up the Flow Test Fixture (Refer to Figure 1001)

CAUTION: WHERE POSSIBLE, USE SURGICAL GLOVES, NON-LATEX GLOVES, OR CLEAN LINT-FREE COTTON GLOVES WHEN YOU TOUCH THE FUEL NOZZLE ADAPTER ASSEMBLY.

CAUTION: MAKE SURE THAT YOU INSTALL THE FUEL STRAINERS IN THE FUEL NOZZLE ADAPTER ASSEMBLY BEFORE YOU DO A TEST.

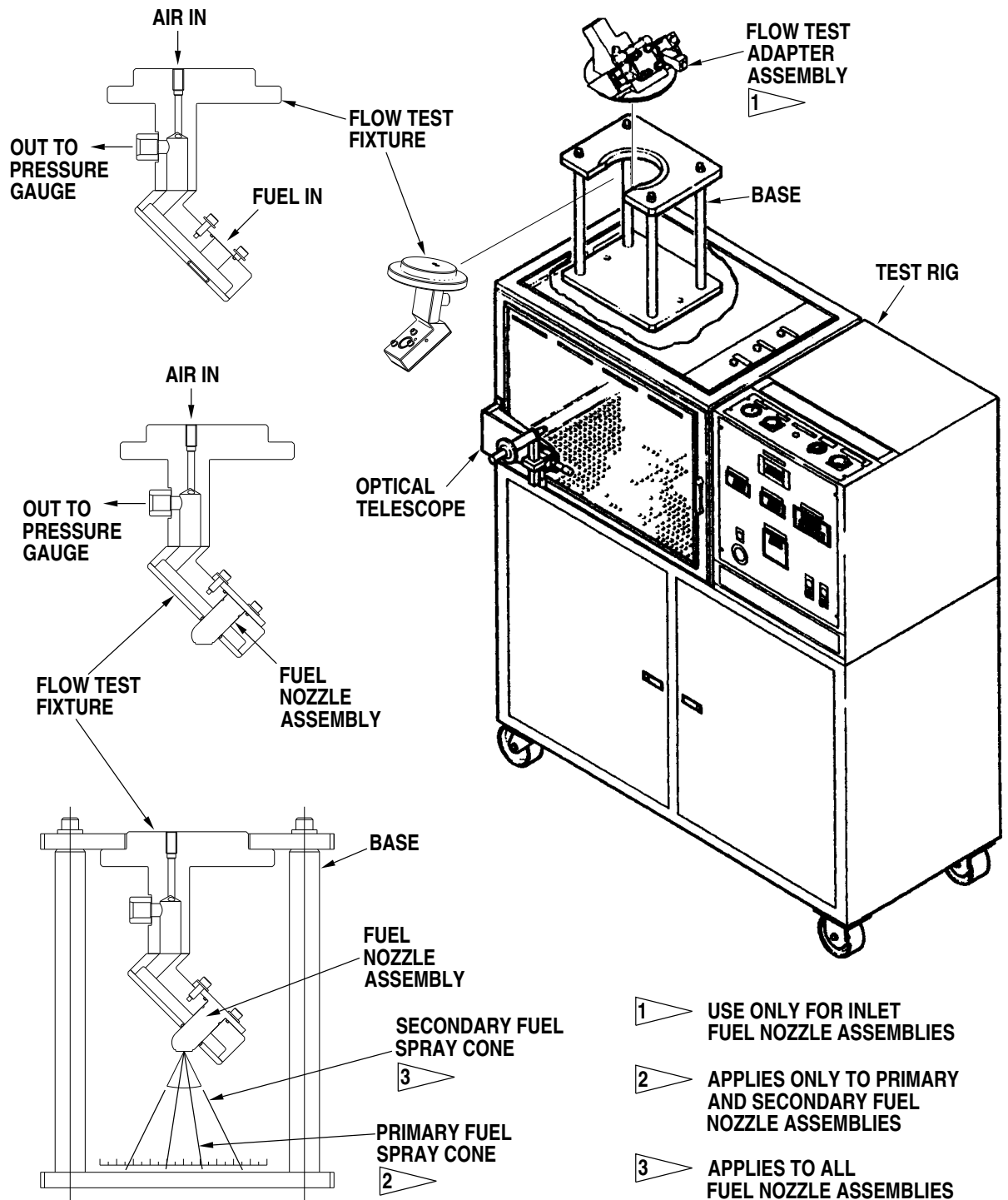
CAUTION: AFTER YOU ADJUST THE PRESSURES IN THE TEST STAND, WAIT A MINIMUM OF 30 SECONDS FOR THE PRESSURE TO BECOME STABLE. THEN MAKE ANY NECESSARY RECORD OF THE INDICATIONS.

- (a) Using the correct flow test fixture, install the part into the flow test fixture. Then, install the flow test fixture into the flow test adapter assembly.

NOTE: The flow test adapter assembly is a part of the base.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TESTING AND FAULT ISOLATION



C176292

Test Stand (Typical Example) - Component Schematic (Typical Example)
 Figure 1001 (Sheet 1 of 2)
 (Task 73-10-05-99F-801)

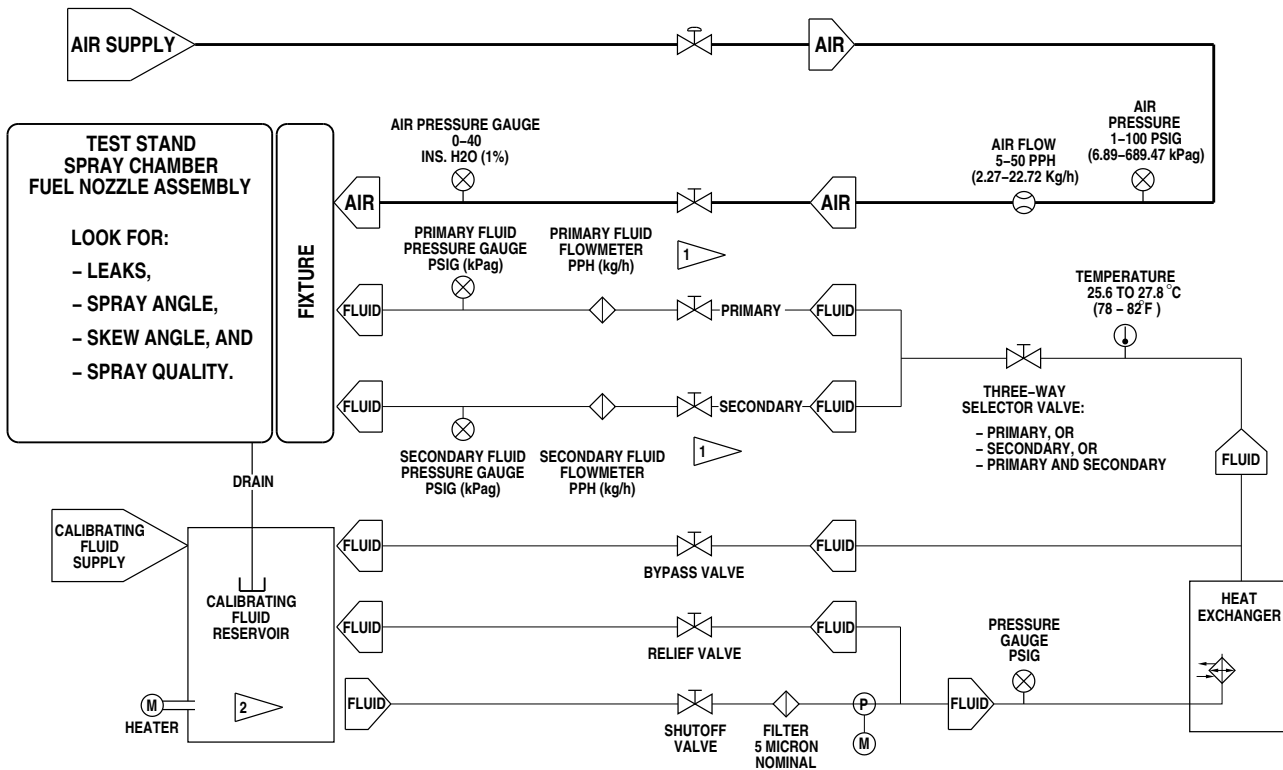
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73-10-05
 TESTING AND FAULT ISOLATION

Page 1005
 Mar 10/2022

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TESTING AND FAULT ISOLATION



NOTES:

NOTE 1: ALL GAUGES ARE INSTALLED ON A CONTROL PANEL. FOR ACCELERATED FLUCTUATIONS, ANALOG GAUGES ARE BETTER. FOR MORE STABLE FLUCTUATIONS, DIGITAL GAUGES ARE BETTER.

NOTE 2: FOR ALL DIGITAL GAUGES, MAKE SURE THAT THE ACCURACY OF THE PRESSURE TRANSDUCER, INSTALLED ON EACH DIGITAL GAUGE, IS ACCURATE TO WITHIN $\pm 0.1\%$ OF THE FULL SCALE.

1 MAKE SURE THAT THE ACCURACY OF THE FLOWMETER IS WITHIN ± 0.25 OF THE READING (VOLUMETRIC).

2 MAINTAIN THE TEMPERATURE OF THE CALIBRATING FLUID IN THE CALIBRATING FLUID RESERVOIR AT 25.6 TO 27.8 °C (78 - 82 °F).

C176293

Test Stand (Typical Example) - Flow Schematic (Typical Example)
 Figure 1001 (Sheet 2)
 (Task 73-10-05-99F-801)

73-10-05

TESTING AND FAULT ISOLATION

Page 1006
 Mar 10/2022

EFF: ALL

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TESTING AND FAULT ISOLATION

Task 73-10-05-700-801

2. Functional Test

A. General

WARNING: WEAR GOGGLES AND PROTECTIVE CLOTHING WHEN YOU OPERATE THE FUEL NOZZLE TEST STAND. CALIBRATING FLUIDS CAN CAUSE SKIN INFLAMMATION.

CAUTION: WHERE POSSIBLE, USE SURGICAL GLOVES, NON-LATEX GLOVES, OR CLEAN LINT-FREE COTTON GLOVES WHEN YOU TOUCH THE FUEL NOZZLE ADAPTER ASSEMBLY. YOUR FINGERPRINTS ON THE ORIFICE OF THE FUEL NOZZLE ADAPTER ASSEMBLY CAN AFFECT THE QUALITY OF THE SPRAY.

- (1) This task gives you the necessary data to do functional tests on the Fuel Nozzle Adapter Assembly.

NOTE: Testing of the fuel nozzle can be performed with or without the sheath.

CAUTION: MAKE SURE THAT YOU INSTALL THE FUEL STRAINERS IN THE FUEL NOZZLE ADAPTER ASSEMBLY BEFORE YOU DO A TEST. IF YOU DO NOT, YOU CAN CAUSE UNWANTED MATERIAL TO GO INTO THE FUEL NOZZLE ADAPTER ASSEMBLY.

- (2) All persons who test the engine components must read and understand the procedures given in the PWA Standard Practices Manual (SPM), P/N 585005.
- (3) In the text, the consumables include a PWC item number: for example, PWC03-002. For more data, refer to the PWC Consumable Materials List (CML), P/N 3043340.
- (4) Refer to Table 1008, Related Subtasks, for the subtask you need.

TABLE 1008, Related Subtasks
(Task 73-10-05-700-801)

Subtask Title(s)	Subtask(s)
Flow Test	Subtask 73-10-05-730-001
Hysteresis Test	Subtask 73-10-05-730-002
Pressure Test	Subtask 73-10-05-790-001

B. Procedure

Subtask 73-10-05-730-001

- (1) Flow Test
- (a) Install the part into a flow test fixture (PWC71086).
- (b) Install the flow test fixture into the base using an adapter (PWC72520).

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TESTING AND FAULT ISOLATION

- (c) Set and keep the temperature of the calibrating fluid (PWC03-002) at 25.6 to 27.8 °C (78-82 °F).
- (d) Apply the calibrating fluid (PWC03-002) at the pressures shown in the tables (refer to Tables 1009 through 1013). If the flow rate is not within the limits of the tables, go to the Cleaning, Inspection and Repair sections of this CMM, as applicable.
- (e) Check the spray quality for streaks, voids, spitting, drooling or skewness. No more than a 20% low contrast streak is permitted. If you find more then 20%, go to the Cleaning, Inspection and Repair sections of this CMM as applicable.

TABLE 1009, Flow Test Requirements (Config A01) (P/N 3058617-01)
(Task 73-10-05-700-801)

FLOW TEST REQUIREMENTS			
Test Point	Pressure	Flow Required	Spray Angle Required
(Point 1) Fuel Flow	125 psig (862 kPag)	9.5/10.6 lb/hr (4.3/4.8 kg/hr)	Not Applicable
(Point 2) Cone Spray Angle	125 psig (862 kPag)	Not Applicable	70-85° See Note 1
(Point 3) Hysteresis up	155 psig (1068 kPag)	20.9 to 23.7 pph (9.4 to 10.8 kg/hr)	Not Applicable
(Point 4) Fuel Flow	300 psig (2068 kPag)	45.3/50.1 lb/hr (20.5/22.7 kg/hr)	Record
(Point 5) Hysteresis down	155 psig (1068 kPag)	See Note 2	Not Applicable
(Point 6) Pressure/Leakage Test	900 psig (6205 kPag)	No external leakage is permitted	
<p>NOTE:</p> <ol style="list-style-type: none"> 1. Check spray quality - no high contrast streaks, voids, spitting, drooling or more than 20% low contrast streaks are allowed. Skewness must be $\pm 5^\circ$. 2. A maximum delta between the increasing and decreasing hysteresis test point shall be +3 /-1 pph (equal to the flow at Test Point 5 minus the flow at Test Point 2). 3. If the test is performed with a sheath and leaking is suspected, remove the sheath (100) and perform Test Point 6 again (refer to Disassembly). 			

TABLE 1010, Flow Test Requirements (Config B01) (P/N 3059126-01)
(Task 73-10-05-700-801)

FLOW TEST REQUIREMENTS			
Test Point	Pressure	Flow Required	Spray Angle Required
(Point 1) Fuel Flow	145 psig (1000 kPag)	0/1 lb/hr	Not Applicable

73-10-05

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TESTING AND FAULT ISOLATION

TABLE 1010, Flow Test Requirements (Config B01) (P/N 3059126-01) (Cont'd)
(Task 73-10-05-700-801)

FLOW TEST REQUIREMENTS			
(Point 2) Fuel Flow & Hysteresis up	180 psig (1241 kPag)	13.8/21.7 lb/hr See Note 2	Not Applicable
(Point 3) Fuel Flow & Cone Spray Angle	300 psig (2068 kPag)	45.7/50.9 lb/hr (20.77/23.13 kg/hr)	Record See Note 1
(Point 4) Hysteresis down	180 psig (1241 kPag)	See Note 2	Not Applicable
(Point 5) Pressure/Leakage Test	900 psig (6205 kPag)	No external leakage is permitted	
<p>NOTE:</p> <ol style="list-style-type: none"> 1. Check spray quality - no high contrast streaks, voids, spitting, drooling or more than 20% low contrast streaks are allowed. Skewness must be $\pm 5^\circ$. 2. A maximum delta between the increasing and decreasing hysteresis test point shall be +3 /-1 pph (equal to the flow at Test Point 4 minus the flow at Test Point 2). 3. If the test is performed with a sheath and leaking is suspected, remove the sheath (100) and perform Test Point 5 again (refer to Disassembly). 			

TABLE 1011, Flow Test Requirements (Config A02) (P/N 3073976-01)
(Task 73-10-05-700-801)

FLOW TEST REQUIREMENTS			
Test Point	Pressure	Flow Required	Spray Angle Required
(Point 1) Fuel Flow, Cone Spray Angle & Hysteresis up	145 psig (1000 kPag)	10.2/12.4 lb/hr See Note 2	70-85° See Note 1
(Point 2) Fuel Flow	180 psig (1241 kPag)	19.8/25.9 lb/hr	Not Applicable
(Point 3) Fuel Flow	300 psig (2068 kPag)	42.4/47.9 lb/hr (19.27/21.7 kg/hr)	Record
(Point 4) Hysteresis down	145 psig (1000 kPag)	See Note 2	Not Applicable
(Point 5) Pressure/Leakage Test	900 psig (6205 kPag)	No external leakage is permitted	

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TESTING AND FAULT ISOLATION

TABLE 1011, Flow Test Requirements (Config A02) (P/N 3073976-01) (Cont'd)
(Task 73-10-05-700-801)

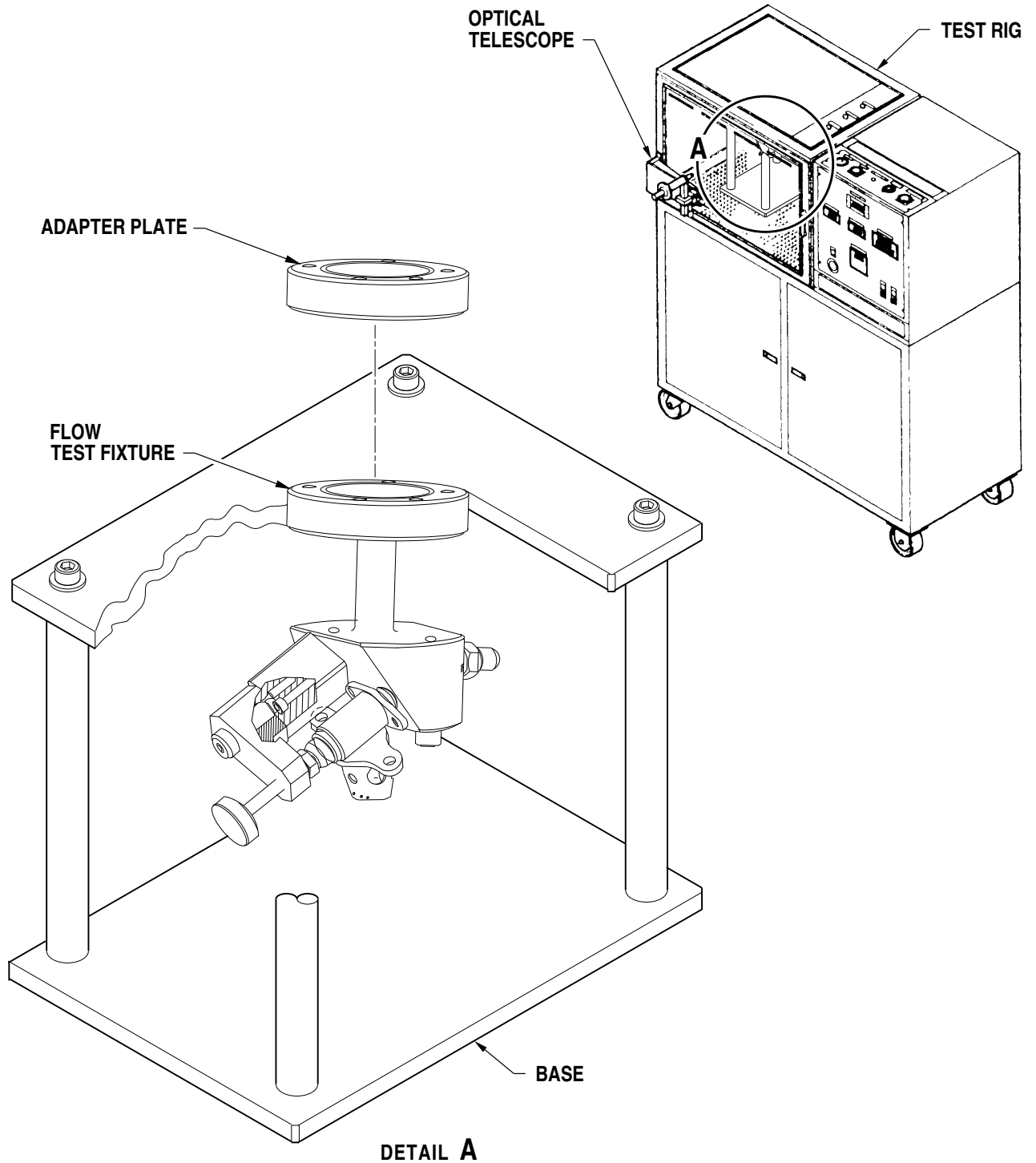
FLOW TEST REQUIREMENTS	
NOTE:	<ol style="list-style-type: none"> 1. Check spray quality - no high contrast streaks, voids, spitting, drooling or more than 20% low contrast streaks are allowed. Skewness must be $\pm 5^\circ$. 2. A maximum delta between the increasing and decreasing hysteresis test point shall be +3 /-1 pph (equal to the flow at Test Point 4 minus the flow at Test Point 1). 3. If the test is performed with a sheath and leaking is suspected, remove the sheath (100) and perform Test Point 5 again (refer to Disassembly).

TABLE 1012, Flow Test Requirements (Config B02) (P/N 3073974-01)
(Task 73-10-05-700-801)

FLOW TEST REQUIREMENTS			
Test Point	Pressure	Flow Required	Spray Angle Required
(Point 1) Fuel Flow	125 psig (861 kPag)	0/1 lb/hr	Not Applicable
(Point 2) Fuel Flow & Hysteresis up	180 psig (1241 kPag)	19.5/24.1 lb/hr See Note 2	Not Applicable
(Point 3) Cone Spray Angle & Fuel Flow	300 psig (2068 kPag)	42.1/47.9 lb/hr (19.1/21.7 kg/hr)	Record See Note 1
(Point 4) Hysteresis down	180 psig (1241 kPag)	See Note 2	Not Applicable
(Point 5) Pressure/Leakage Test	900 psig (6205 kPag)	No external leakage is permitted	
NOTE:	<ol style="list-style-type: none"> 1. Check spray quality - no high contrast streaks, voids, spitting, drooling or more than 20% low contrast streaks are allowed. Skewness must be $\pm 5^\circ$. 2. A maximum delta between the increasing and decreasing hysteresis test point shall be +3 /-1 pph (equal to the flow at Test Point 4 minus the flow at Test Point 2). 3. If the test is performed with a sheath and leaking is suspected, remove the sheath (100) and perform Test Point 5 again (refer to Disassembly). 		

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COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TESTING AND FAULT ISOLATION



C215818

Test Stand - Set-Up - CEL Stand and PWC Tooling
Figure 1002
(Task 73-10-05-700-801)

EFF: ALL

73-10-05
TESTING AND FAULT ISOLATION

Page 1011
Mar 10/2022

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

TESTING AND FAULT ISOLATION

TABLE 1013, Flow Test Requirements (Config B03) (P/N 3058932-01)
(Task 73-10-05-700-801)

FLOW TEST REQUIREMENTS			
Test Point	Pressure	Flow Required	Spray Angle Required
(Point 1) Fuel Flow	125 psig (861 kPag)	0/1 lb/hr	Not Applicable
(Point 2) Fuel Flow & Hysteresis up	155 psig (1068 kPag)	13.1/18.0 lb/hr See Note 2	Not Applicable
(Point 3) Cone Spray Angle & Fuel Flow	300 psig (2068 kPag)	42.9/47.0 lb/hr (19.5/21.3 kg/hr)	Record See Note 1
(Point 4) Hysteresis down	155 psig (1068 kPag)	See Note 2	Not Applicable
(Point 5) Pressure/Leakage Test	900 psig (6205 kPag)	No external leakage is permitted	
<p>NOTE:</p> <ol style="list-style-type: none"> 1. Check spray quality - no high contrast streaks, voids, spitting, drooling or more than 20% low contrast streaks are allowed. Skewness must be $\pm 5^\circ$. 2. A maximum delta between the increasing and decreasing hysteresis test point shall be +3 /-1 pph (equal to the flow at Test Point 4 minus the flow at Test Point 2). 3. If the test is performed with a sheath and leaking is suspected, remove the sheath (100) and perform Test Point 5 again (refer to Disassembly). 			

Subtask 73-10-05-730-002

(2) Hysteresis Test

- (a) Perform the hysteresis test as per the test table for your part (refer to Tables 1009 to 1013 for the values).
- (b) Record the results.
- (c) If the values are not within the limits shown in the table, clean the part (refer to Cleaning).

Subtask 73-10-05-790-001

(3) Pressure Test

- (a) If testing is performed without the sheath, make sure the tab washer is properly bent before performing the test (refer to Assembly).
- (b) Using a pressure leak fixture (PWC72324), do the pressure test on the part as per the test table for your part (refer to Tables 1009 to 1013 for values).
- (c) Record the results.
- (d) No leakage or seepage is permitted.

73-10-05

TESTING AND FAULT ISOLATION

Page 1012
Mar 10/2022

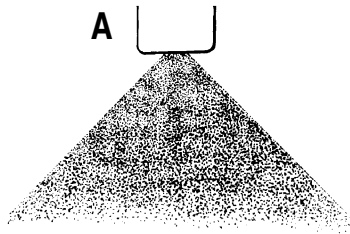
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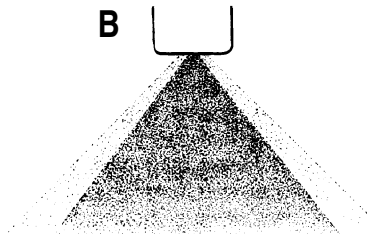
TESTING AND FAULT ISOLATION

- (e) If the test is performed with the sheath on and leaking is suspected, remove the sheath (100) and perform the test again (refer to Disassembly).
- (f) If the part does not pass the test, refer to Inspection and Repair.
- (g) If the part passes the test, remove the part from the test fixture.
- (h) Use dry low-pressure filtered-shop-air at 30 psig (207 kPag) and blow the exterior of the part dry.

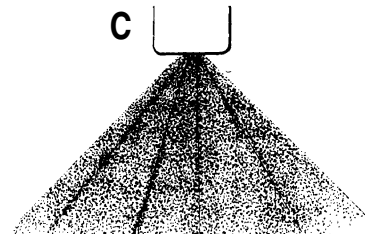
TESTING AND FAULT ISOLATION



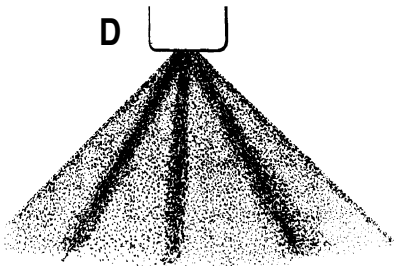
A
ACCEPTABLE:
GOOD UNIFORM
SPRAY PATTERN



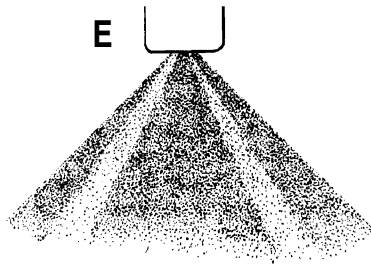
B
ACCEPTABLE:
TWO SPRAY CONES THAT HAVE
THE SAME CENTERLINE AND HAVE
UNIFORM SPRAY PATTERNS



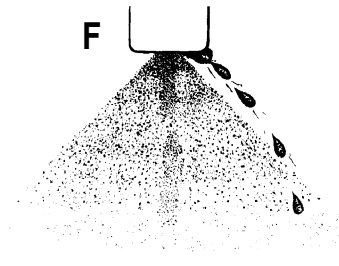
C
NOT ACCEPTABLE:
LIGHT STREAKS
IN THE SPRAY
PATTERN



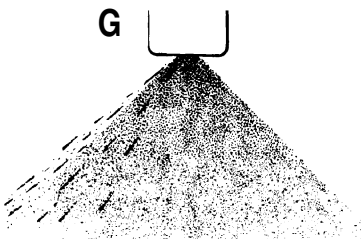
D
NOT ACCEPTABLE:
ONE OR MORE HEAVY
STREAKS IN THE
SPRAY PATTERN



E
NOT ACCEPTABLE:
ONE OR MORE
VOIDS IN THE SPRAY
PATTERN

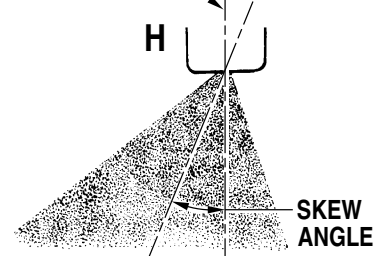


F
NOT ACCEPTABLE:
DROOLING ON THE OUTSIDE
OF THE SPRAY PATTERN



G
NOT ACCEPTABLE:
SPITTING IN THE
SPRAY PATTERN

☉ OF THE SPRAY TIP ASSEMBLY



H
NOT ACCEPTABLE:
SKEW ANGLE THAT
IS OUT OF LIMITS

C243647

Test Stand - Spray Quality Standards Chart
 Figure 1003
 (Task 73-10-05-700-801)

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SCHEMATICS AND WIRING DIAGRAMS

NOT APPLICABLE

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DISASSEMBLY

Task 73-10-05-99F-801

1. General / Introduction

- A. This pageblock gives you the necessary data to disassemble the Fuel Nozzle Adapter Assembly. Refer to Table 3001, Related Tasks.

NOTE: Before proceeding with the disassembly, inspect the nozzle inlet for the presence of varnish (refer to Check).

TABLE 3001, Related Tasks
(Task 73-10-05-99F-801)

Task Title(s)	Task(s)
Disassembly of the Fuel Nozzle Adapter Assembly	Task 73-10-05-060-801

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

DISASSEMBLY

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COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

DISASSEMBLY

Task 73-10-05-060-801

2. Disassembly of the Fuel Nozzle Adapter Assembly

A. General

- (1) This task gives you the necessary data to disassemble the Fuel Nozzle Adapter assembly.
- (2) All persons who disassemble the engine components must read and understand the procedures given in the PWA Standard Practices Manual (SPM), P/N 585005.
- (3) In the text, the consumables include a PWC item number: for example, PWC03-002. For more data, refer to the PWC Consumable Materials List (CML), P/N 3043340.
- (4) Refer to Table 3002, Related Subtasks, for the subtask (s) that you need.

TABLE 3002, Related Subtasks
(Task 73-10-05-060-801)

Subtask Title(s)	Subtask(s)
Disassembly of Fuel Nozzle Adapter Assembly	Subtask 73-10-05-060-001

B. Job Set-Up Information

Subtask 73-10-05-94A-002

- (1) Consumables

TABLE 3003, Consumables
(Task 73-10-05-060-801)

Item Number	Material	Source (CML Code)
PWC05-078	Oil, Releasing	Local Purchase (A0001)
<u>NOTE:</u> You can use equivalent substitutes for the consumables that show in this table.		

Subtask 73-10-05-94B-001

- (2) Special Tools / Non Standard Tools

TABLE 3004, Special Tools / Non Standard Tools
(Task 73-10-05-060-801)

Part Number	Name	Source (CAGE Code)
PWC70728	Crowfoot, Tip Removal	Pratt & Whitney Canada Corp. (00198)
PWC71082	Puller, Accessory (Fuel Nozzle)	
PWC72522	Holder, (Fuel Nozzle)	

EFF: ALL

73-10-05
DISASSEMBLY

Page 3003
Sep 29/2017

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

DISASSEMBLY

TABLE 3004, Special Tools / Non Standard Tools (Cont'd)
(Task 73-10-05-060-801)

Part Number	Name	Source (CAGE Code)
None	Blades, Metal (Quantity 2)	Local Purchase or Supply

NOTE: You can use equivalent substitutes for the tools that show in this table.

Subtask 73-10-05-94D-001

(3) Standard Tools

TABLE 3005, Standard Tools
(Task 73-10-05-060-801)

Part Number	Name	Source (CAGE Code)
Not Applicable	Scribe, Plastic	Local Purchase

NOTE: You can use equivalent substitutes for the tools that show in this table.

Subtask 73-10-05-99E-002

(4) References

(a) Not Applicable

C. Procedure

CAUTION: KEEP THE PARTS OF EACH FUEL NOZZLE ADAPTER AND STEM ASSEMBLY TOGETHER IN CLEAN, INDIVIDUAL PLASTIC TRAYS. DO NOT MIX COMPONENTS FROM OTHER FUEL NOZZLE ADAPTER AND STEM ASSEMBLIES. THE TIP COMPONENTS ARE MATCHED SETS; DO NOT INTERMIX.

Subtask 73-10-05-060-001

(1) Disassembly of Fuel Nozzle Adapter Assembly (Refer to Figure 3001)

NOTE: Before you try to remove the sheath, apply some releasing oil (PWC05-078) to the area around the sheath and allow the oil to penetrate the area.

NOTE: You should only remove and change the strainer if you see damage and/or heavy varnish build-up.

NOTE: You can use 2 metal blades or a combination of puller (PWC71082) and blades to remove the sheath from the adapter body.

(a) **For Configuration A part numbers:** Remove the sheath (100) from flange and over tip assembly (20) of housing assembly (10) as follows:

1 Install the puller (PWC71082) onto the fuel nozzle adapter.

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COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

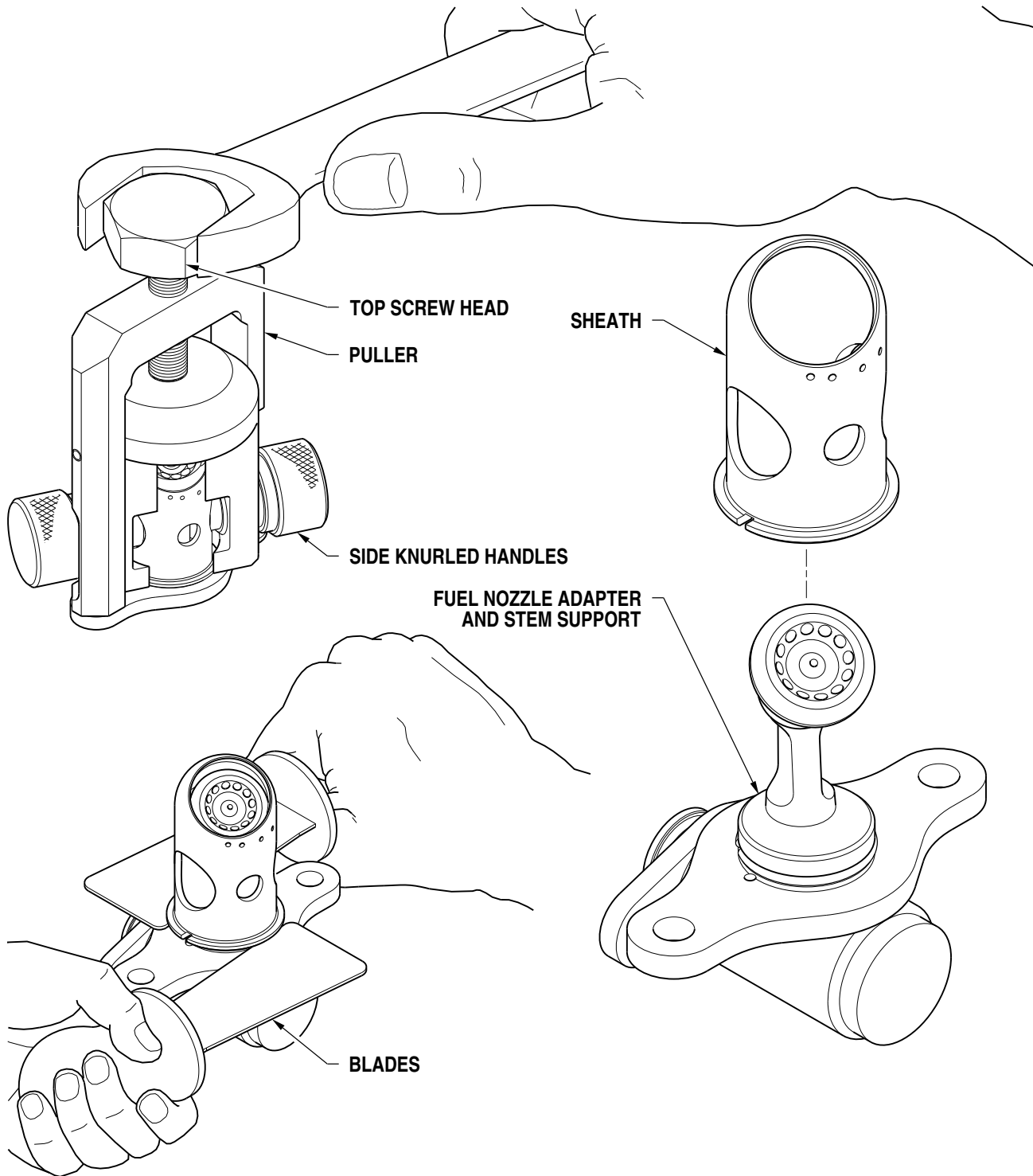
DISASSEMBLY

- 2 For puller (PWC71082), screw the two side knurled handles until the tool passes the holes in the sheath.
- 3 For puller (PWC71082), screw the top screw head with a wrench until the sheath moves, so you can create enough clearance between the sheath face and the adapter body to use the two metal blades.

NOTE: You can use 2 metal blades or a combination of puller (PWC71082) and blades to remove the sheath from the adapter body.

- (b) **For Configuration B part numbers:** Remove sheath (90) from flange and over tip assembly (20) of housing assembly (10) as follows:
 - 1 Install the puller onto the fuel nozzle adapter.
 - 2 Screw the two side knurled handles until the tool passes the holes in the sheath.
 - 3 Screw the top screw head with a wrench until the sheath moves, so you can create enough clearance between the sheath face and the adapter body to use the two metal blades.
 - 4 Insert the two metal blades under the sheath to carefully pry the sheath up the adapter body.
 - 5 Remove the puller (PWC71082) from the fuel nozzle adapter.
- (c) Install the fuel nozzle adapter and stem in a holder (PWC72522).
- (d) Bend the two triangle tabs of locking washer to the flat position to allow rotation of tip assembly.
- (e) Use a crowfoot (PWC70728) and remove the tip assembly. Discard the locking washer and seal.
- (f) **Configuration A:** Remove distributor (50) and orifice cone (40) from swirler (30) and place in plastic container. Make sure to keep all parts together.
- (g) **Configuration B:** Remove fuel swirler (40) from swirler (30) and place in plastic container. Make sure to keep all parts together.
- (h) **This step is only required if you see damage and/or heavy varnish build-up on the strainer and inlet port (refer to Check).** Using a suitable plastic tool, remove the strainer from the part.

DISASSEMBLY



ICN-00198-G000010872-001-01

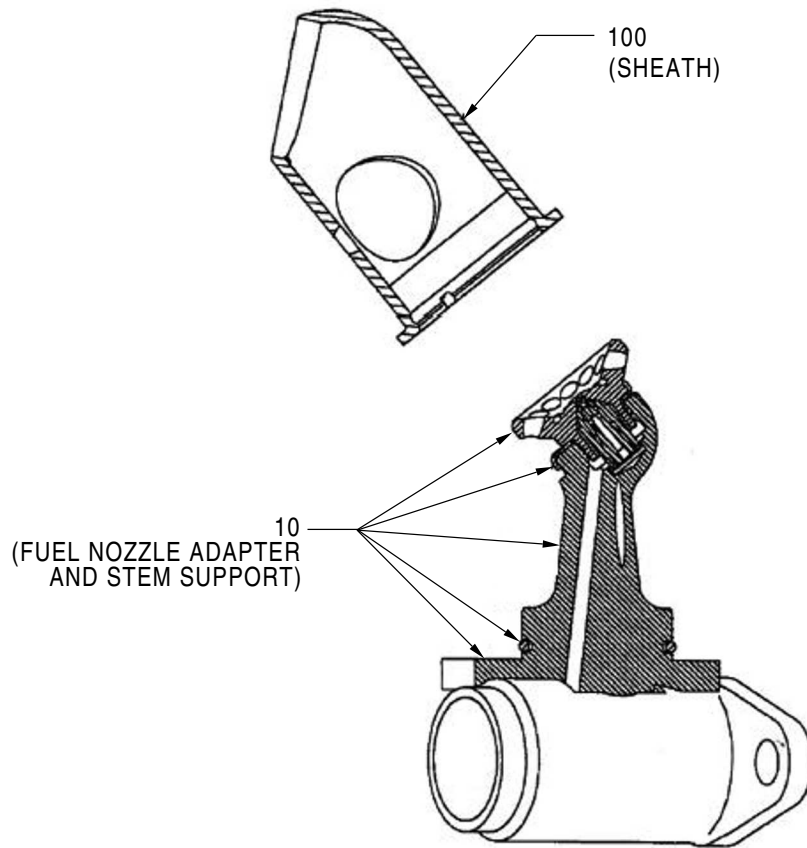
Nozzle Assembly - Removal of Sheath from Housing Assy (Typical)

Figure 3001 (Sheet 1 of 9)

(Task 73-10-05-060-801)

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

DISASSEMBLY



ICN-00198-G000010871-001-01

Nozzle Assembly - Removal of Sheath (Config A)

Figure 3001 (Sheet 2)

(Task 73-10-05-060-801)

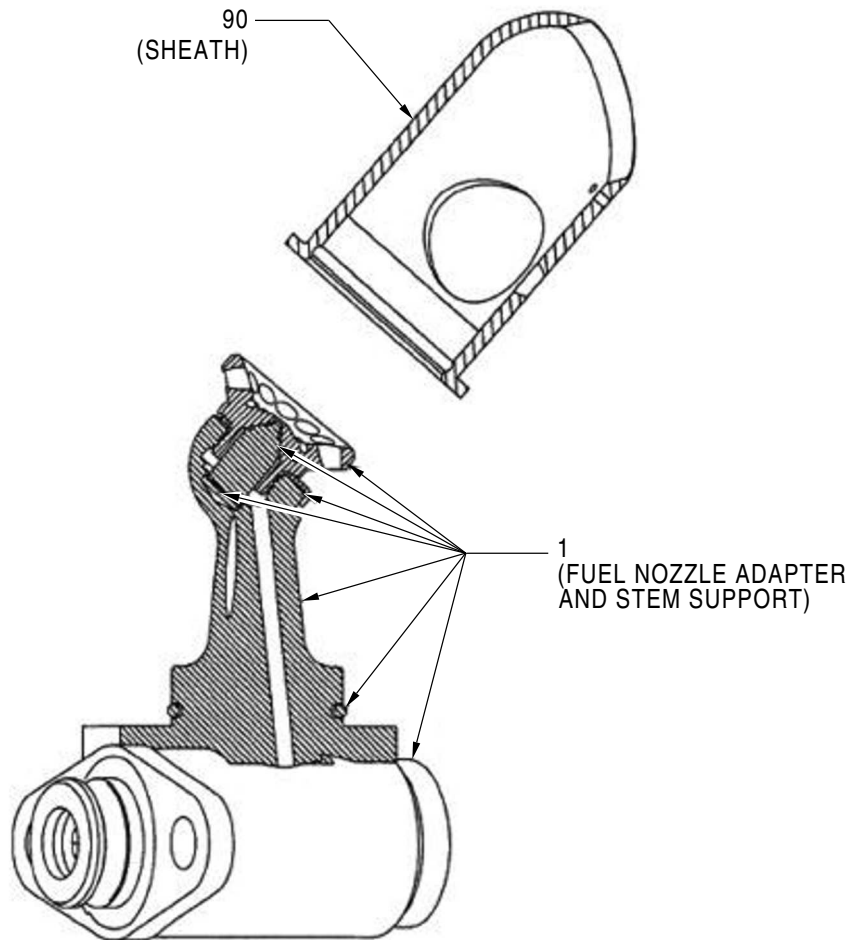
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73-10-05
DISASSEMBLY

Page 3007
Sep 29/2017

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

DISASSEMBLY



ICN-00198-G000010870-001-01

Nozzle Assembly - Removal of Sheath (Config B)
Figure 3001 (Sheet 3)
(Task 73-10-05-060-801)

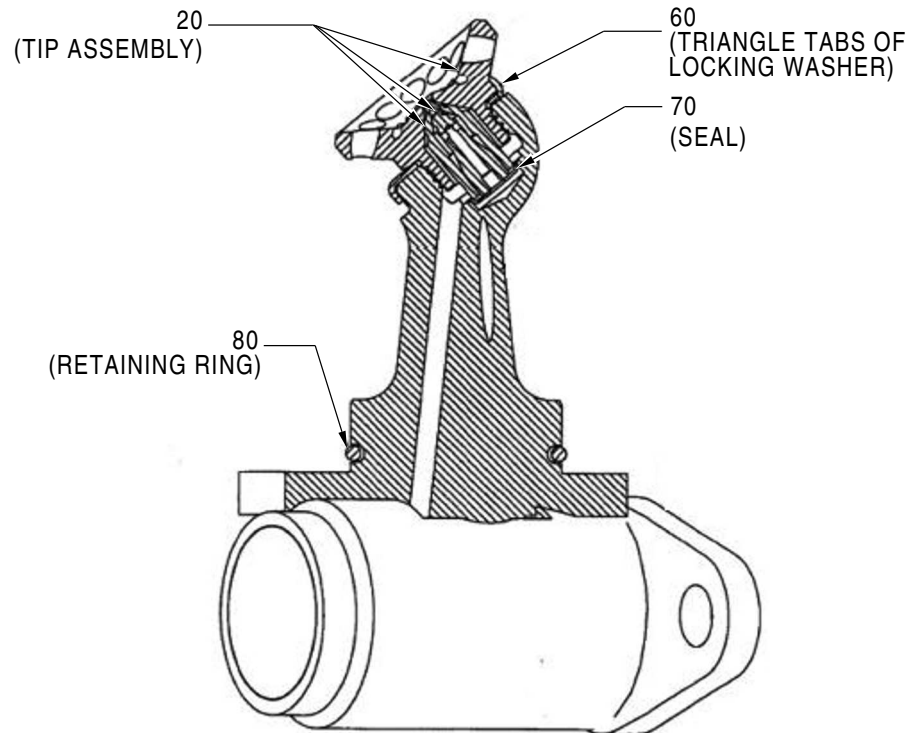
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73-10-05
DISASSEMBLY

Page 3008
Sep 29/2017

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

DISASSEMBLY



BENDING OF TRIANGLE TABS OF LOCKING WASHER (60)

ICN-00198-G000010869-001-01

Nozzle Assembly - Bending of Triangle Tabs of Locking Washer (Config A)

Figure 3001 (Sheet 4)
(Task 73-10-05-060-801)

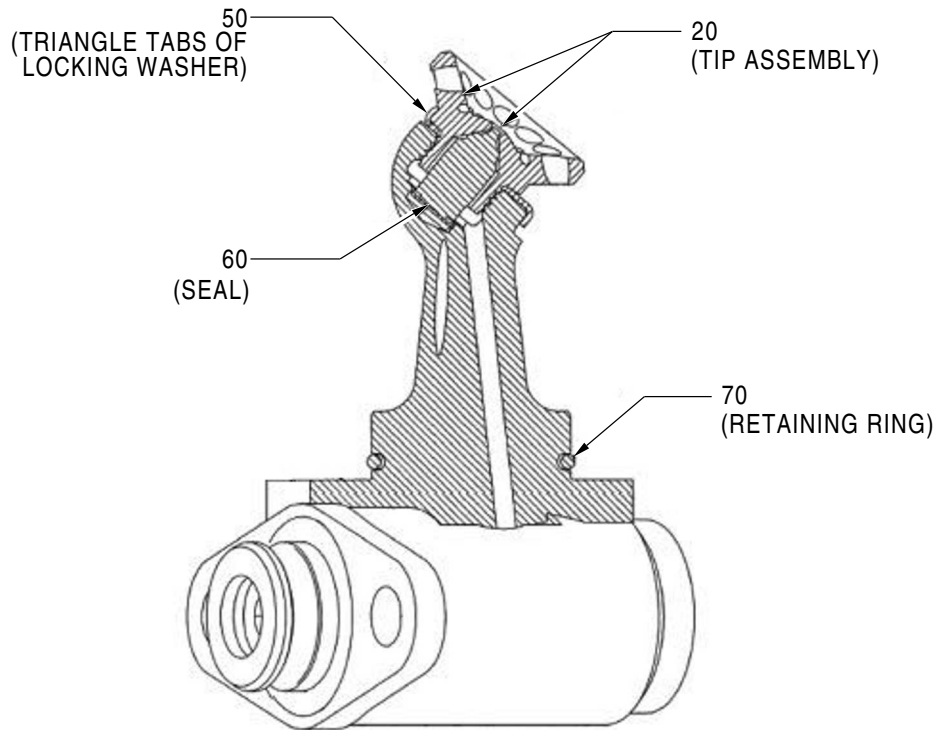
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73-10-05
DISASSEMBLY

Page 3009
Sep 29/2017

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

DISASSEMBLY



BENDING OF TRIANGLE TABS OF LOCKING WASHER (50)

ICN-00198-G000010434-001-01

Nozzle Assembly - Bending of Triangle Tabs of Locking Washer (Config B)

Figure 3001 (Sheet 5)

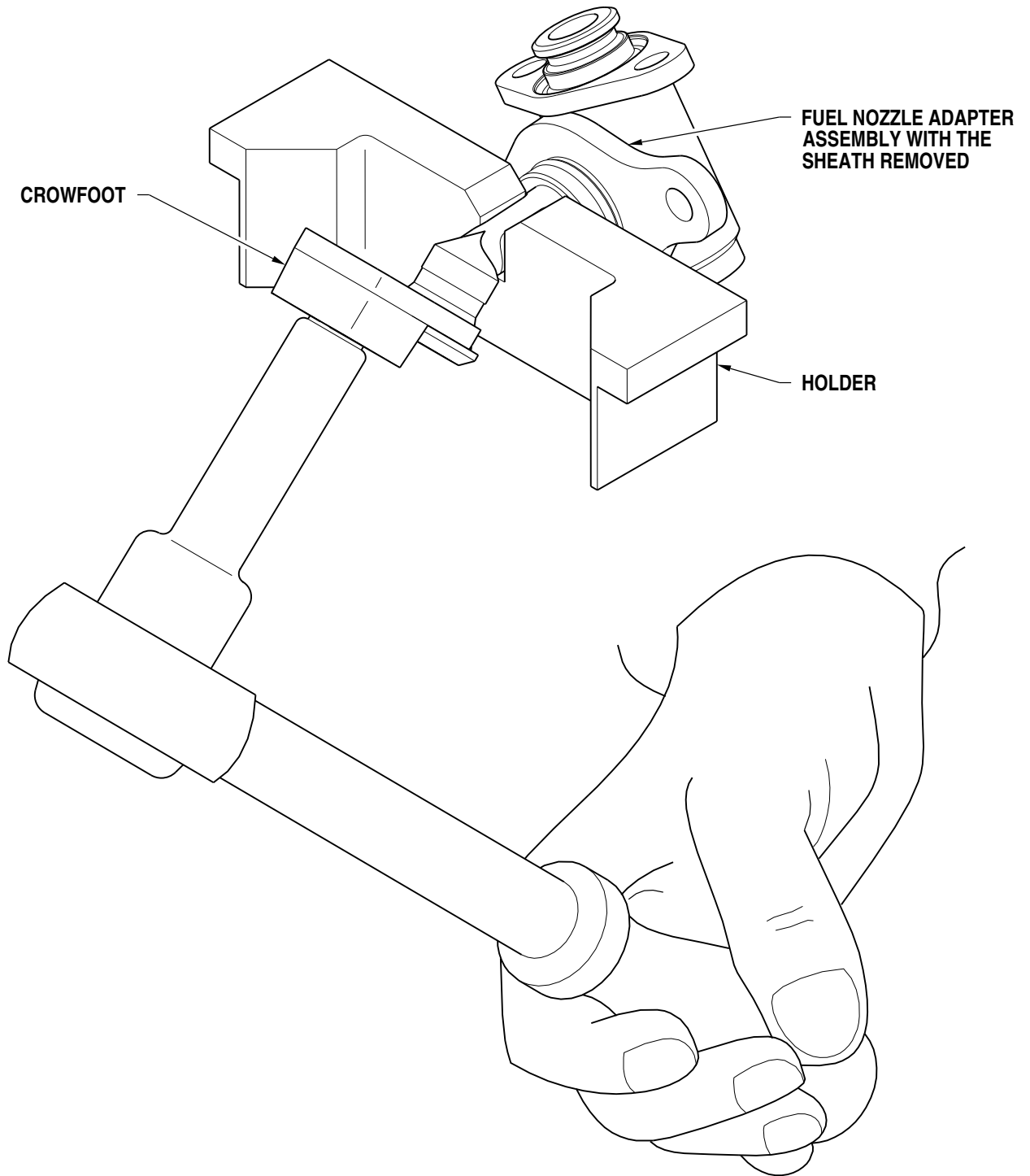
(Task 73-10-05-060-801)

73-10-05
DISASSEMBLY

Page 3010
Sep 29/2017

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DISASSEMBLY



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Nozzle Assembly - Tip Assy Removal (Typical)
Figure 3001 (Sheet 6)
(Task 73-10-05-060-801)

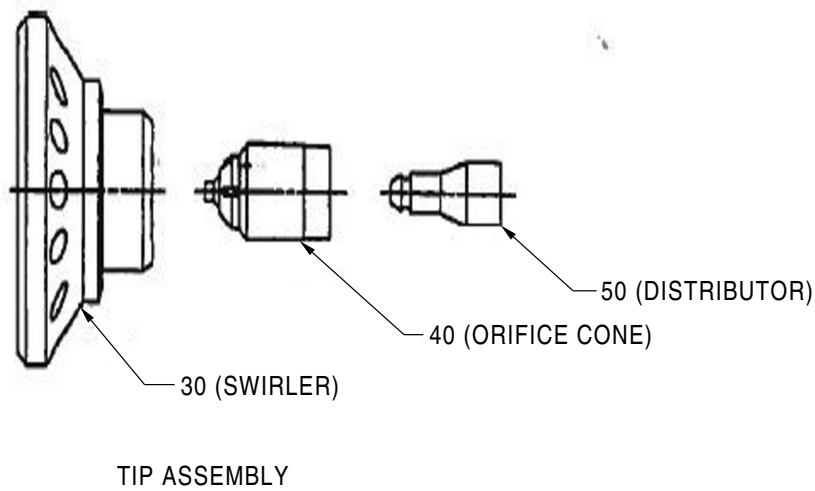
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73-10-05
DISASSEMBLY

Page 3011
Sep 29/2017

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

DISASSEMBLY



ICN-00198-G000010867-001-01

Nozzle Assembly - Tip Assembly (Config A)
Figure 3001 (Sheet 7)
(Task 73-10-05-060-801)

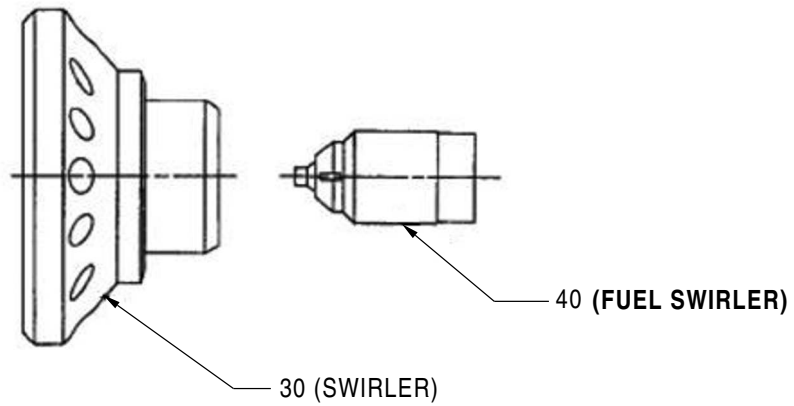
73-10-05
DISASSEMBLY

Page 3012
Sep 29/2017

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PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

DISASSEMBLY



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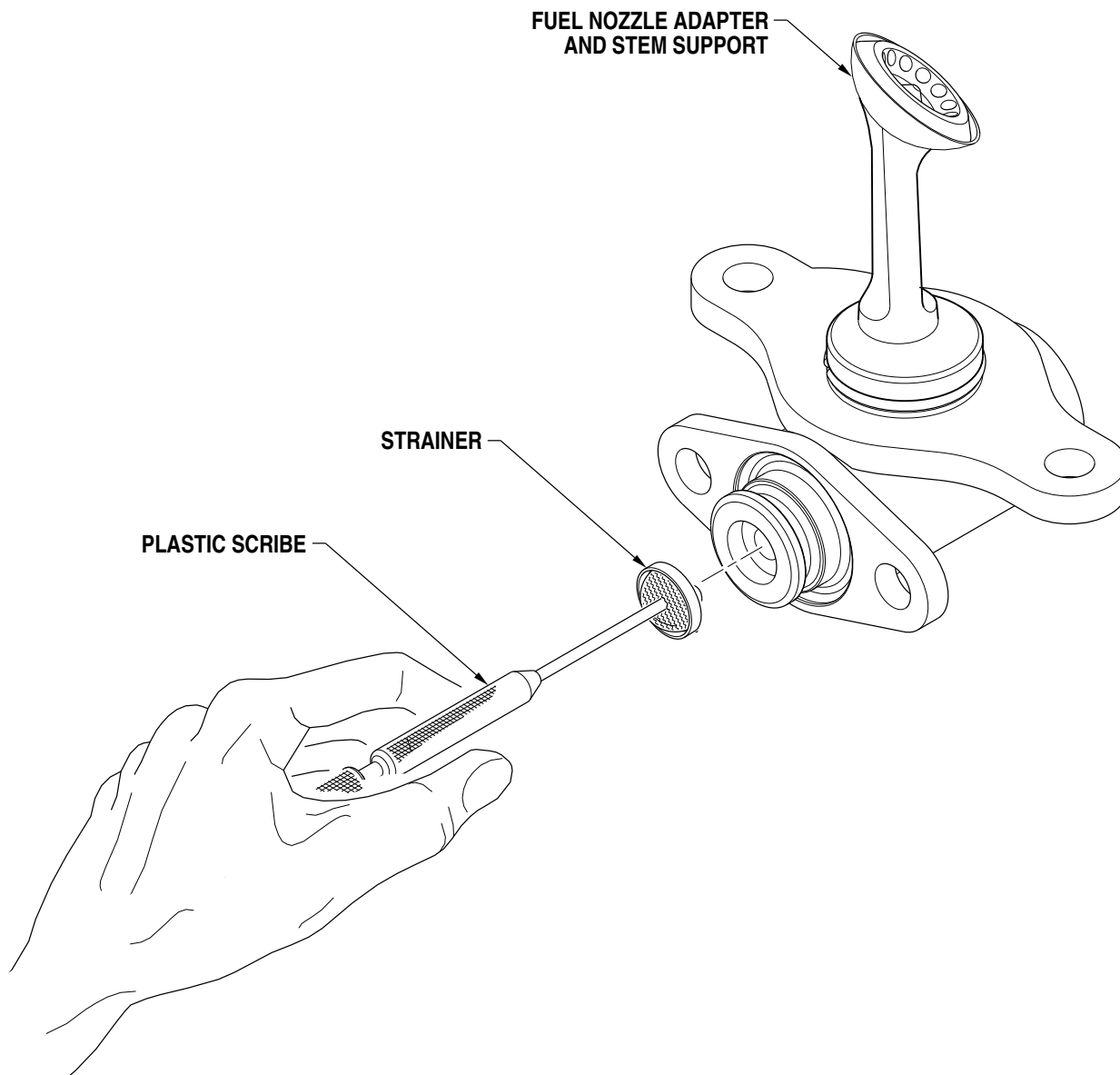
Nozzle Assembly - Tip Assembly (Config B)
Figure 3001 (Sheet 8)
(Task 73-10-05-060-801)

EFF: ALL

73-10-05
DISASSEMBLY

Page 3013
Sep 29/2017

DISASSEMBLY



ICN-00198-G000010878-001-01

Nozzle Assembly - Removal of Strainer (Typical)
Figure 3001 (Sheet 9)
(Task 73-10-05-060-801)

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CLEANING

Task 73-10-05-99F-801

1. General / Introduction

- A. This pageblock gives you the necessary data to clean the Fuel Manifold Adapter assembly. Refer to Table 4001, Related Tasks.

TABLE 4001, Related Tasks
(Task 73-10-05-99F-801)

Task Title(s)	Task(s)
Cleaning	Task 73-10-05-140-801

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COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CLEANING

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COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CLEANING

Task 73-10-05-140-801

2. Cleaning

A. General

- (1) This section gives data and instructions that are necessary to clean the Fuel Nozzle Adapter assembly.
- (2) All persons who clean the engine components must read and understand the procedures given in the PWA Standard Practices Manual (SPM), P/N 585005. Refer to the SPM for SPOP's.
- (3) In the text, the consumables include a PWC item number: for example, PWC03-002. For more data, refer to the PWC Consumable Materials List (CML), P/N 3043340.

B. Job Set-Up Information

Subtask 73-10-05-94A-003

(1) Consumables

TABLE 4002, Consumables
(Task 73-10-05-140-801)

Item Number	Material	Source (CML Code)
PWC03-002	Fluid, Calibrating MIL-PRF-7024 Type II	Local Purchase (A0001)
PWC05-061	Cloth, Crocus	
PWC05-073	Water, Distilled, Deionized or Demineralized	
PWC05-280	Paper, Industrial Tissue, Wiping (Kimwipes)	Kimberly-Clark Corp. (33591)
PWC05-444	General Purpose Soap (Dirl Lum 603)	Local Purchase (A0001) or Blue Wave Ultrasonics (0UU57) (http://bluewaveinc.com)
PWC11-014	Isopropyl Alcohol	Local Purchase (A0001)
PWC11-046	Rust Remover, Alkaline (TURCO ARR 4181L) Fed Spec TT-C-490 D	Local Purchase (A0001) or Henkel North America (84063) (http://www.henkelna.com)
NOTE: You can use equivalent substitutes for the consumables that show in this table.		

Subtask 73-10-05-94B-002

(2) Special Tools / Non Standard Tools

TABLE 4003, Special Tools / Non Standard Tools
(Task 73-10-05-140-801)

Part Number	Name	Source (CAGE Code)
None	Refractometer, 0-50% range	Local Purchase

EFF: ALL

73-10-05
CLEANING

Page 4003
Jan 17/2020

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CLEANING

TABLE 4003, Special Tools / Non Standard Tools (Cont'd)
(Task 73-10-05-140-801)

Part Number	Name	Source (CAGE Code)
<u>NOTE:</u> You can use equivalent substitutes for the tools that show in this table.		

Subtask 73-10-05-94C-002

(3) Fixtures / Test Equipment

TABLE 4004, Fixtures
(Task 73-10-05-140-801)

Part Number	Name	Source (CAGE Code)
Not Applicable	Support, Fuel Adapter Housing	Local Manufacture
PWC71086	Flow Test Fixture, Fuel Nozzle	Pratt & Whitney Canada Corp. (00198)
PWC72520	Adapter, Fuel Nozzle Flow Test	
Not Applicable	Base, Fuel Nozzle Flow Test	CEL Aerospace Test Equipment Ltd. (3AS79)
CEL 50200-2	Test Stand	
<u>NOTE:</u> You can use equivalent substitutes for the Fixtures that shows in this table.		

TABLE 4005, Test Equipment
(Task 73-10-05-140-801)

Part Number	Name	Source (CAGE Code)
Not Applicable	Ultrasonic Cleaner, 25-40 kHz	Local Purchase
	Corrosion Resistant, Sectioned, Steel Wire Mesh Baskets, designed for use in ultrasonics.	
<u>NOTE:</u> You can use equivalent substitutes for the test equipment that shows in this table.		

Subtask 73-10-05-94D-002

(4) Standard Tools

TABLE 4006, Standard Tools
(Task 73-10-05-140-801)

Part Number	Name	Source (CAGE Code)
GA 55-1	Brush, Nylon Bristle	Local Purchase

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CLEANING

TABLE 4006, Standard Tools (Cont'd)
(Task 73-10-05-140-801)

Part Number	Name	Source (CAGE Code)
<u>NOTE:</u> You can use equivalent substitutes for the tools that show in this table.		

Subtask 73-10-05-99E-003

(5) References

TABLE 4007, References
(Task 73-10-05-140-801)

Reference	Manual Part Number
PWC Consumable Materials List (CML)	3043340

C. Job Set-Up

Subtask 73-10-05-160-001

(1) Preparation for Cleaning

- (a) Mix the alkaline rust remover (PWC11-046) and the distilled water (PWC05-073) until you get a concentration of 28-32%. Measure the concentration with a refractometer.
- (b) Heat the alkaline rust remover to a temperature of 60 to 71 °C (140-160 °F).
- (c) Heat the general purpose soap (PWC05-444) to a temperature of 49 to 71 °C (120-160 °F).

D. Cleaning Procedure

Subtask 73-10-05-140-001

(1) Tip Assembly Components (Refer to Figure 4001)

- (a) Place the disassembled tip components and the sheath into divided perforated baskets and submerge into the ultrasonic cleaner containing heated alkaline solution. Make sure to keep all disassembled parts together.
- (b) Turn the power on and keep the components in ultrasonic unit for 45 minutes minimum or until clean.
- (c) Turn the power off, remove the basket containing the components, and immediately rinse in deionized water (PWC05-073).
- (d) Submerge the components into the ultrasonic cleaner containing heated general purpose soap (PWC05-444).
- (e) Turn the power on and keep the components in ultrasonic unit for 15 (fifteen) minutes minimum.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CLEANING

- (f) Turn the power off and remove the basket and immediately rinse the components in deionized water (PWC05-073) 2 (two) times. Blow dry the components with low pressure, filtered shop air at 30 psig (207 Kpag) maximum.

WARNING: DO NOT POINT THE AIR STREAM AT YOURSELF OR TOWARD ANOTHER PERSON.

WARNING: WEAR GOGGLES OR A FACE SHIELD TO PROTECT YOUR EYES.

- (g) Submerge the components into isopropyl alcohol (PWC11-014) and remove. Blow dry with low pressure, filtered shop air at 30 psig (207 Kpag) maximum.

NOTE: If you find carbon on the spray surfaces of the tip assembly, you can use a nylon bristle brush with alkaline rust remover (PWC11-046) to remove the carbon buildup or residue. Dip into general purpose soap (PWC05-418) to remove the alkaline rust remover (PWC11-046), then rinse in water (PWC05-073), then isopropyl alcohol (PWC11-014) to clean.

NOTE: If you find carbon on the spray surfaces of the tip assembly, you can use a crocus cloth (PWC05-061) or an industrial wiping tissue (PWC05-280) to remove carbon buildup or residue.

Subtask 73-10-05-130-001

- (2) Housing Assembly (Refer to Figure 4002)(Figure 4003)

- (a) Suspend the housing assembly to the level shown in the figure into the ultrasonic cleaner containing the heated alkaline rust remover (PWC11-046).
- (b) Turn the power on and keep the housing assembly in the ultrasonic unit for 60 (sixty) minutes, minimum, or until the part is clean.
- (c) Turn the power off, remove the housing assembly, and immediately dip the part into distilled water (PWC05-073) to the level shown in the figure.

CAUTION: MAKE SURE TO NOT SUBMERGE THE PART IN THE CLEANING SOLUTION LOWER THAN THE DISTANCE SHOWN ON THE FIGURE.

- (d) Suspend the housing assembly, at the level shown in the figure, into the ultrasonic cleaner containing the heated general purpose soap (PWC05-418).
- (e) Turn the power on and keep the components in the ultrasonic cleaner for twenty (20) minutes, minimum.

WARNING: DO NOT POINT THE AIR STREAM AT YOURSELF OR TOWARD ANOTHER PERSON.

WARNING: WEAR GOGGLES OR A FACE SHIELD TO PROTECT YOUR EYES.

- (f) Turn the power off, remove the housing assembly, and immediately rinse the components in deionized water (PWC05-073). Dip the housing assembly to the level shown in the figure. Blow dry the components with low pressure, filtered shop air at 30 psig (207 Kpag) maximum.

73-10-05
CLEANING

Page 4006
Jan 17/2020

EFF: ALL

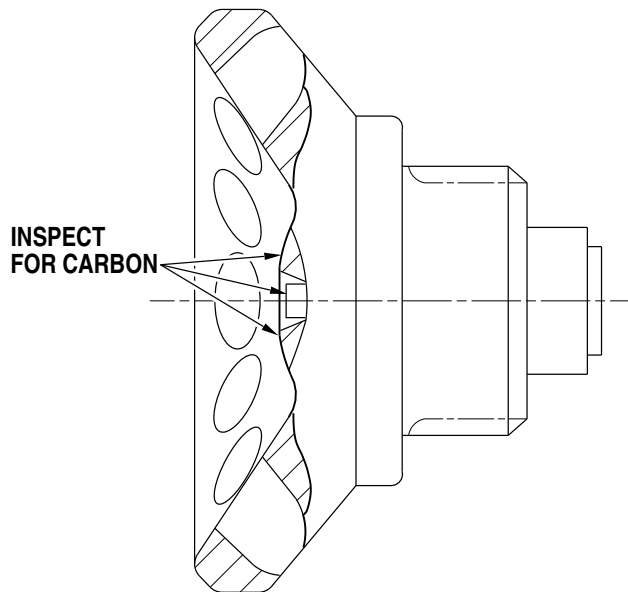
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COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CLEANING

- (g) Dip the housing assembly into isopropyl alcohol (PWC11-014) to the level shown in the figure and remove. Blow dry the components with low pressure, filtered shop air at 30 psig (207 Kpag) maximum.
- (h) Insert the housing assembly into a flow test fixture (PWC71086) with a base and adapter (PWC72520) and put inside the test stand (CEL 50200-2). Apply calibrating fluid (PWC03-002) for a time of 1 (one) minute, minimum, at a pressure of 100 to 350 psig (689.5–2413 kPag). Do three (3) pressure cycles, minimum.
- (i) Remove the housing assembly from the flow test fixture and blow dry with low pressure, filtered shop air at 30 psig (207 Kpag) maximum.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CLEANING



C96475

Tip Assembly - Inspection for Carbon - Cleaning
Figure 4001 (Sheet 1 of 3)
(Task 73-10-05-140-801)

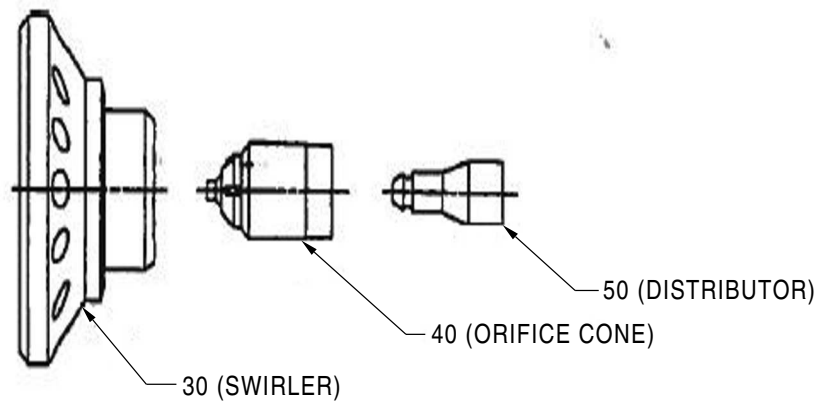
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73-10-05
CLEANING

Page 4008
Jan 17/2020

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CLEANING



TIP ASSEMBLY

ICN-00198-G000010867-001-01

Tip Assembly - Inspection for Carbon - Cleaning
Figure 4001 (Sheet 2)
(Task 73-10-05-140-801)

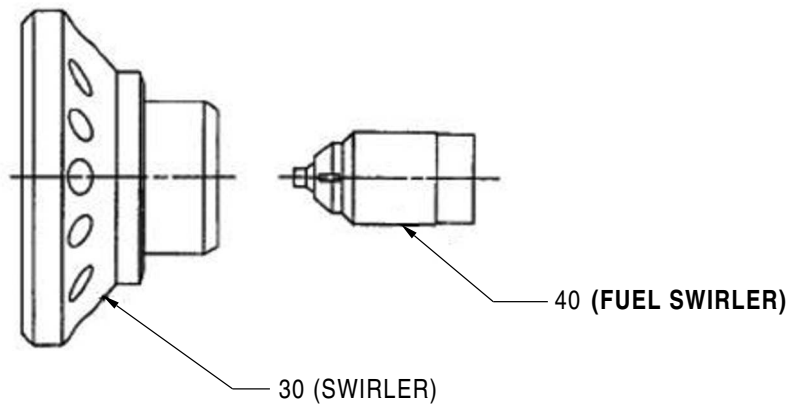
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73-10-05
CLEANING

Page 4009
Jan 17/2020

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CLEANING



ICN-00198-G000010866-001-01

Tip Assembly - Inspection for Carbon - Cleaning
Figure 4001 (Sheet 3)
(Task 73-10-05-140-801)

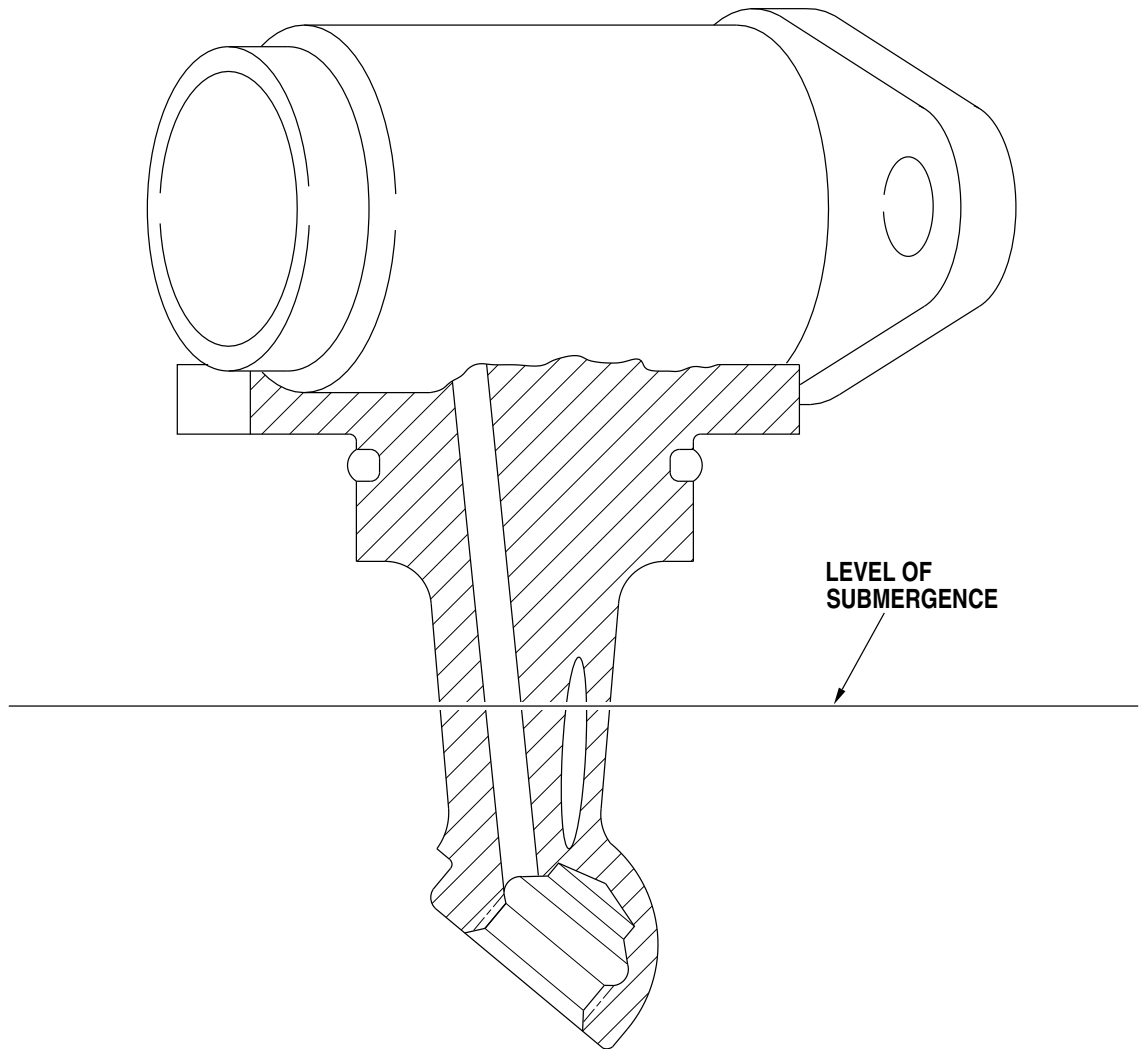
73-10-05
CLEANING

Page 4010
Jan 17/2020

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PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CLEANING



C96476

Level of Submergence
Figure 4002
(Task 73-10-05-140-801)

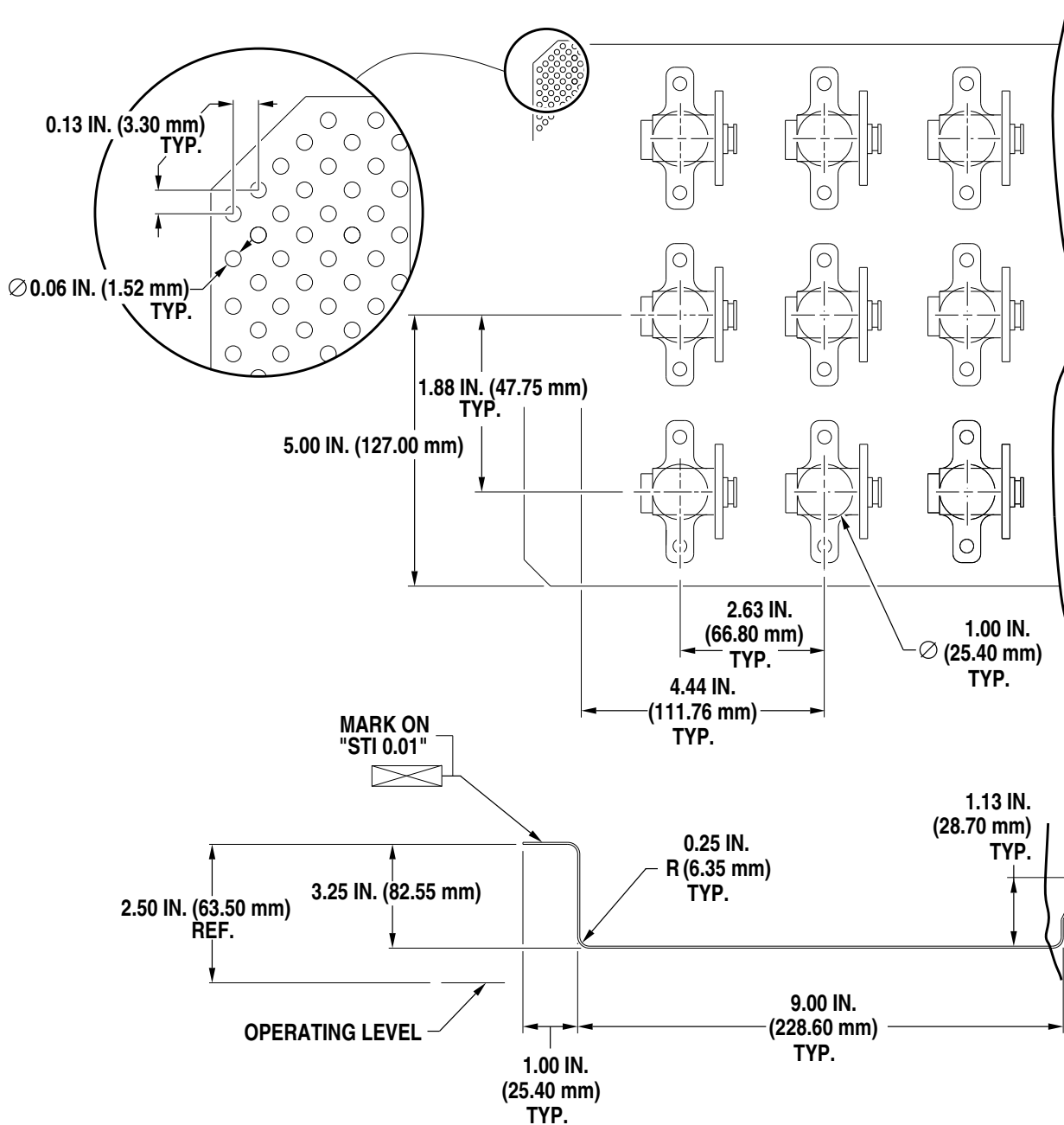
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73-10-05
CLEANING

Page 4011
Jan 17/2020

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CLEANING



ICN-00198-G000026679-001-01

Housing Assembly - Fuel Nozzle Adaptor Housing Support
 Figure 4003
 (Task 73-10-05-140-801)

73-10-05
 CLEANING

Page 4012
 Jan 17/2020

EFF: ALL

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CHECK

Task 73-10-05-99F-801

1. General / Introduction

- A. This pageblock gives you the necessary data to check the Fuel Nozzle Adapter Assembly. Refer to Table 5001, Related Tasks.
- B. If the part is not in the serviceable limits, put the part assembly in a polyethylene bag (PWC05-054) (Refer to Storage) and return to Pratt & Whitney Component Solutions Inc. (refer to Introduction).

TABLE 5001, Related Tasks
(Task 73-10-05-99F-801)

Task Title(s)	Task(s)
Inspection / Check of the Fuel Nozzle Adapter Assembly	Task 73-10-05-220-801

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CHECK

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73-10-05
CHECK

Page 5002
Jan 17/2020

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CHECK

Task 73-10-05-220-801

2. Inspection / Check of the Fuel Nozzle Adapter Assembly

A. General

CAUTION: WHERE POSSIBLE, USE SURGICAL GLOVES, NON-LATEX GLOVES, OR CLEAN LINT-FREE COTTON GLOVES WHEN YOU TOUCH THE FUEL NOZZLE ASSEMBLY. YOUR FINGERPRINTS ON THE ORIFICE OF THE FUEL NOZZLE ASSEMBLY CAN AFFECT THE QUALITY OF THE SPRAY.

CAUTION: KEEP THE PARTS OF EACH FUEL NOZZLE ASSEMBLY TOGETHER IN A POLYETHYLENE BAG (PWC05-054). DO NOT MIX COMPONENTS FROM OTHER FUEL NOZZLE ASSEMBLIES.

- (1) This task gives you the data and instructions that are necessary to do a visual inspection and check of the Fuel Nozzle Adapter Assembly.
- (2) All persons who check the engine components must read and understand the procedures given in the PWA Standard Practices Manual (SPM), P/N 585005.
- (3) In the text, the consumables include a PWC item number: for example, PWC03-002. For more data, refer to the PWC Consumable Materials List (CML), P/N 3043340.
- (4) Inspect all the detail parts of fuel nozzle adapter assembly and reject all detail parts that fail to meet inspection requirements, except where a repair of the parts is permitted.

NOTE: The distributor and the body are a matched set. Rejection of either of the parts means you need to replace both parts.

- (5) Refer to Table 5002, Related Subtasks, for the subtask that you need.

TABLE 5002, Related Subtasks
(Task 73-10-05-220-801)

Subtask Title(s)	Subtask(s)
Inspection - Housing Assembly and Sheath	Subtask 73-10-05-220-001
Inspection - Nozzle Inlet and Strainer - Visual	Subtask 73-10-05-220-002
Inspection - Nozzle Inlet - Scratches	Subtask 73-10-05-220-003
Inspection - Nozzle Inlet - Pre-formed Packing Groove	Subtask 73-10-05-220-004
Inspection - Tip Assembly Components (Config A00)	Subtask 73-10-05-220-001-A00
Inspection - Tip Assembly Components (Config B00)	Subtask 73-10-05-220-001-B00

EFF: ALL

73-10-05
CHECK

Page 5003
Jan 17/2020

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CHECK

B. Job Set-Up Information

Subtask 73-10-05-94C-003

(1) Fixtures / Test Equipment

TABLE 5003, Fixtures / Test Equipment
(Task 73-10-05-220-801)

Part Number	Name	Source (CAGE Code)
Not Applicable	Microscope, 10X Power with Illumination	Local Purchase
<p><u>NOTE:</u> You can use equivalent substitutes for the Fixtures/Test Equipment that show in this table.</p>		
<p><u>NOTE:</u> When you do a check, use the microscope at 10X power maximum unless specified otherwise.</p>		

Subtask 73-10-05-99E-004

(2) References

(a) Not Applicable

C. Procedure

Subtask 73-10-05-220-001

(1) Visual Inspection - Housing Assembly, Sheath (Refer to Figure 5001)

NOTE: If you see heavy varnish build-up (refer to Check for basic criteria), you must overhaul the fuel nozzle. Return the part to Pratt & Whitney Canada Corp. (refer to Introduction).

NOTE: If you see damage, you must remove and change the strainer.

- (a) Check the seal surface of the stem support for small scratches. Small scratches can be removed (Refer to Repair, Subtask 73-10-05-350-001).
- (b) Check the seal surface of the stem support for raised metal surfaces. Raised material can be removed (Refer to Repair, Subtask 73-10-05-350-002).
- (c) Check threads for raised material. Raised material can be removed (Refer to Repair, Subtask 73-10-05-350-003).
- (d) Check the sheath for wear/erosion (refer to figure, Sheet 4). The maximum allowable limit is 0.010 in. (25.65 mm). If the part is not in the limit, reject the part.
- (e) Check the threads for crossed or stripped threads. Crossed or stripped threads can be repair (Refer to Repair, Subtask 73-10-05-350-004).

73-10-05
CHECK

Page 5004
Jan 17/2020

EFF: ALL

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CHECK

- (f) Check the pin height. The height dimension must be between 0.035 to 0.050 in. (0.889-1.270 mm) when you measure from the flange. If the pin height is not in the range, return the part to Pratt & Whitney Component Solutions Inc. (refer to Introduction).

Subtask 73-10-05-220 -002

- (2) Visual Inspection - Nozzle Inlet, Strainer (Refer to Figure 5001 Sheet 3)
- (a) Visual Inspection - Nozzle Inlet, Strainer
- (b) **This step is required if you see damage and/or heavy varnish build-up on the strainer and the inlet port.** If you see heavy varnish build-up, you need to remove the strainer and overhaul the part.

Subtask 73-10-05-220 -003

- (3) Visual Inspection - Nozzle Inlet, Scratches
- (a) Visual Inspection - Nozzle Inlet, Scratches
- (b) **This step is required if the strainer was removed from the inlet port.** Check the inside surfaces of nozzle inlet for scratches. Small scratches can be removed from the inside surfaces (Refer to Repair, Subtask 73-10-05-350-001).

Subtask 73-10-05-220 -004

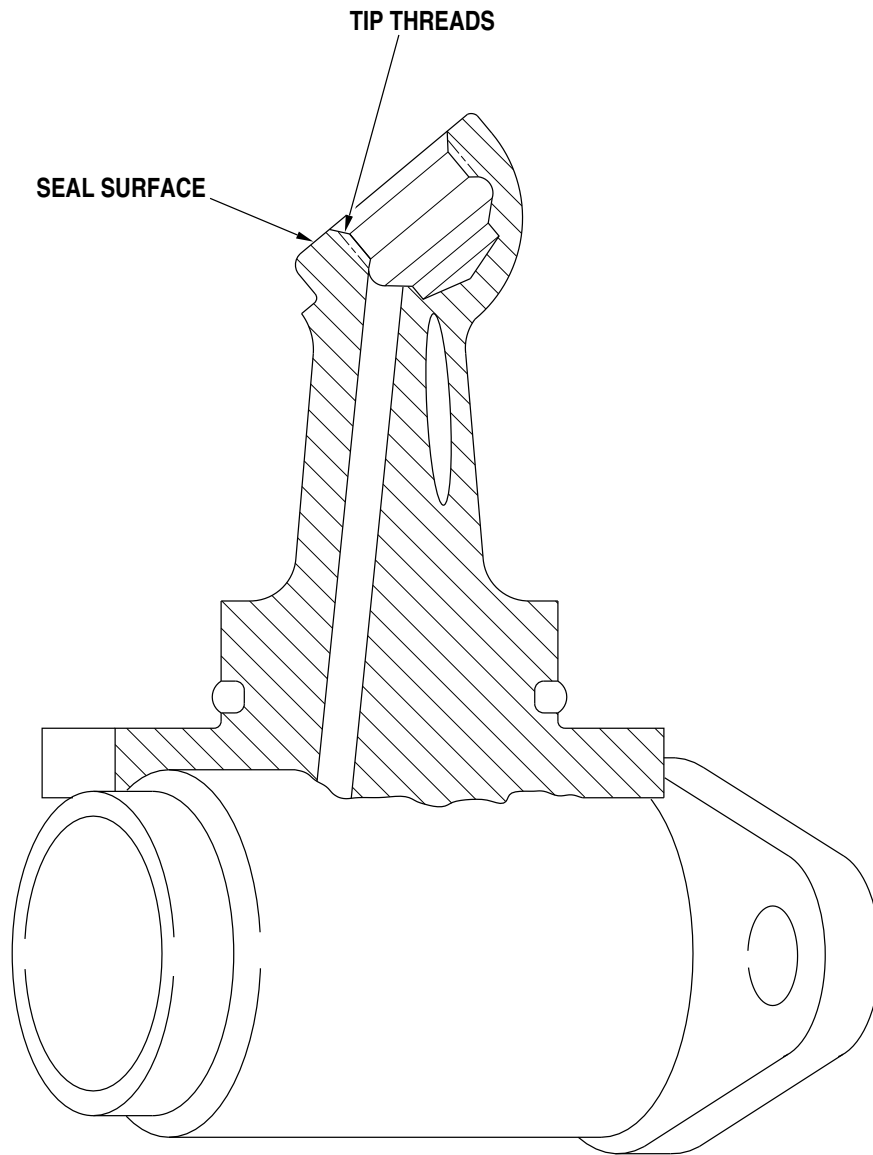
- (4) Visual Inspection - Nozzle Inlet - Pre-formed Packing Groove
- (a) Visual Inspection - Nozzle Inlet - Pre-formed Packing Groove
- (b) Check the pre-formed packing groove for scratches and raised material. Small scratches and raised material can be removed (Refer to Repair, Subtask 73-10-05-350-001).

Subtask 73-10-05-220-005-A00

- (5) Visual Inspection - Tip Assembly Components (Refer to Figure 5003)
- (a) **Distributor:**
- 1 Check the part for erosion; no erosion on the part is allowed. If erosion is found, discard the complete part.
- 2 Check the part for carbon. If you find carbon, clean the part (Refer to Cleaning).
- (b) **Orifice Cone:**
- 1 Check the part for erosion; no erosion on the part is allowed. If erosion is found, discard the complete part.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CHECK



C96511

Visual Inspection - Housing Assembly
Figure 5001 (Sheet 1 of 4)
(Task 73-10-05-220-801)

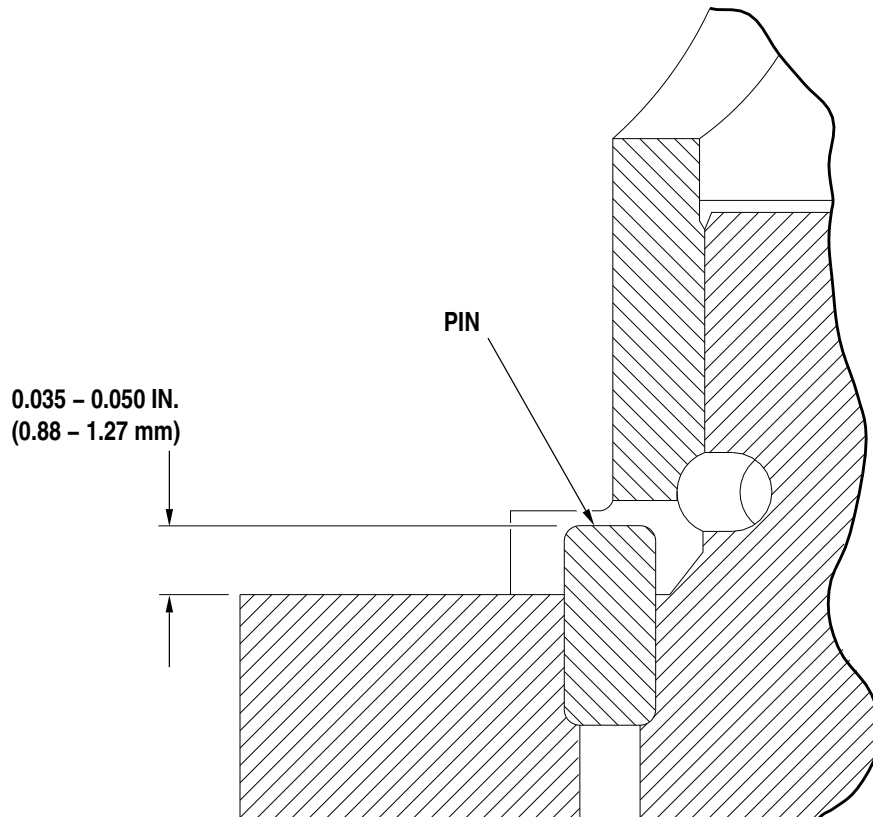
73-10-05
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Page 5006
Jan 17/2020

EFF: ALL

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CHECK



C213870

Visual Inspection - Pin
Figure 5001 (Sheet 2)
(Task 73-10-05-220-801)

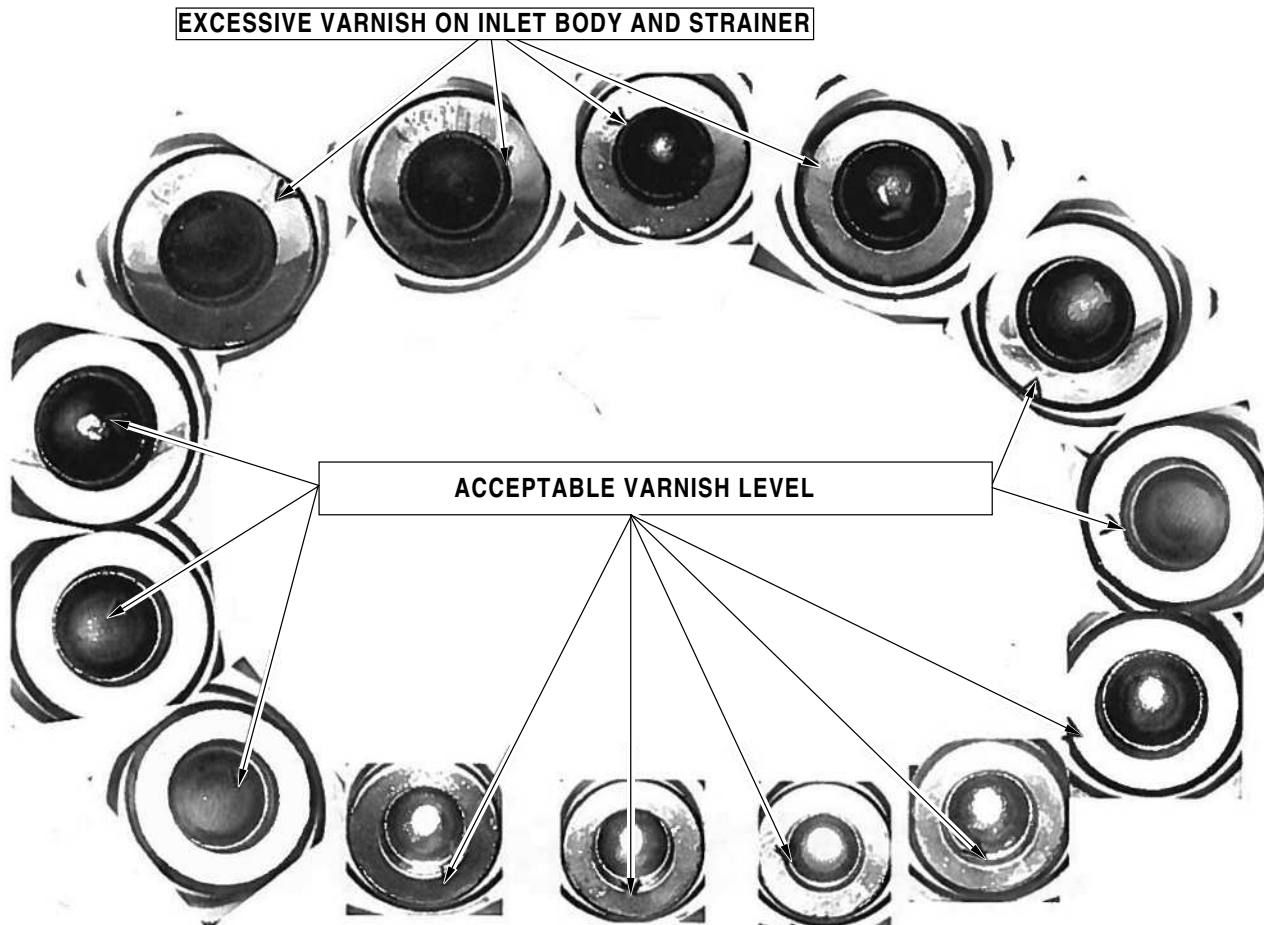
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73-10-05
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Page 5007
Jan 17/2020

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

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ICN-00198-G000010419-001-01

Visual Inspection - Varnish Build-up - Criteria
Figure 5001 (Sheet 3)
(Task 73-10-05-220-801)

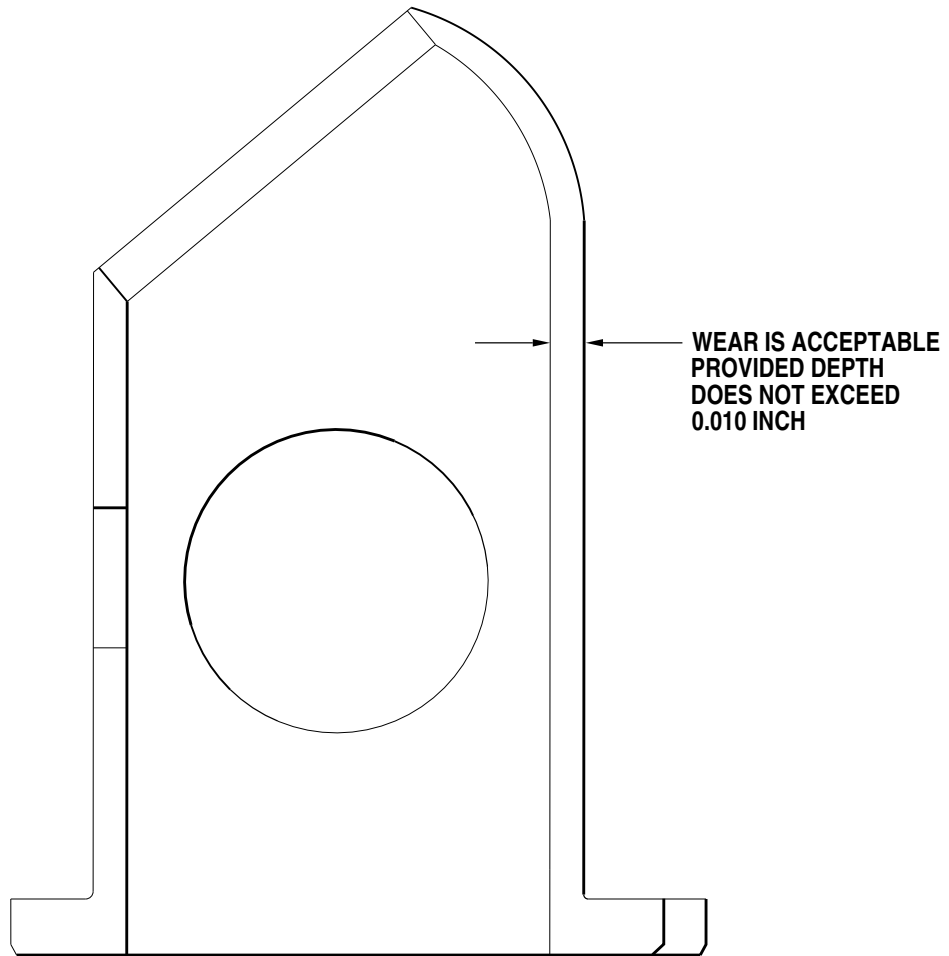
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Page 5008
Jan 17/2020

EFF: ALL

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CHECK



C81932

Visual Inspection - Sheath
Figure 5001 (Sheet 4)
(Task 73-10-05-220-801)

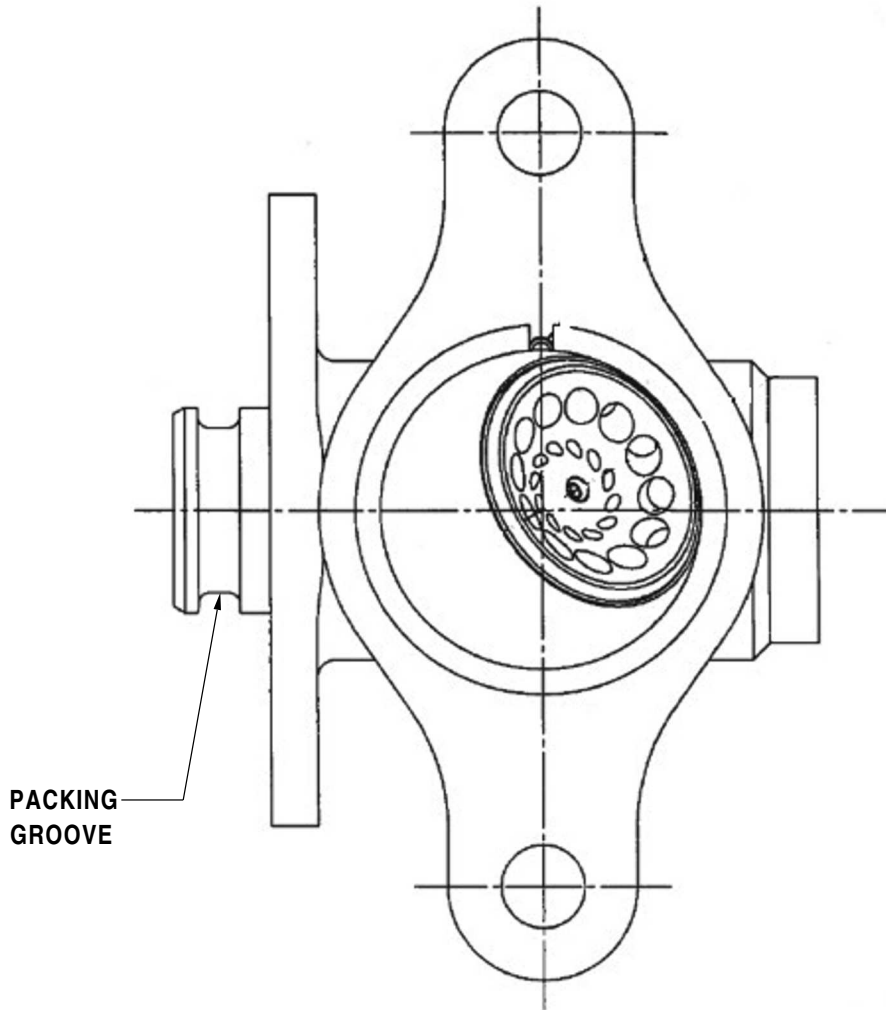
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73-10-05
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Page 5009
Jan 17/2020

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CHECK



NOZZLE ASSEMBLY (TYPICAL)

C231896

Visual Inspection - Preformed Packing Groove
Figure 5002
(Task 73-10-05-220-801)

EFF: ALL

73-10-05
CHECK

Page 5010
Jan 17/2020

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CHECK

- 2 Check the part for carbon. If you find carbon, clean the part (Refer to Cleaning).

(c) **Swirler:**

- 1 Check the part for erosion; no erosion on the part is allowed. If erosion is found, discard the complete part.
- 2 Check the part for carbon. If you find carbon, clean the part (Refer to Cleaning).
- 3 Check for cross, stripped or damaged threads. You can repair crossed or stripped threads (Refer to Repair, Subtask 73-10-05-350-005). If the threads have more than small damage, discard the complete part.

Subtask 73-10-05-220-006-B00

(6) Inspection - Tip Assembly Components (Refer to Figure 5004)

(a) **Orifice Cone:**

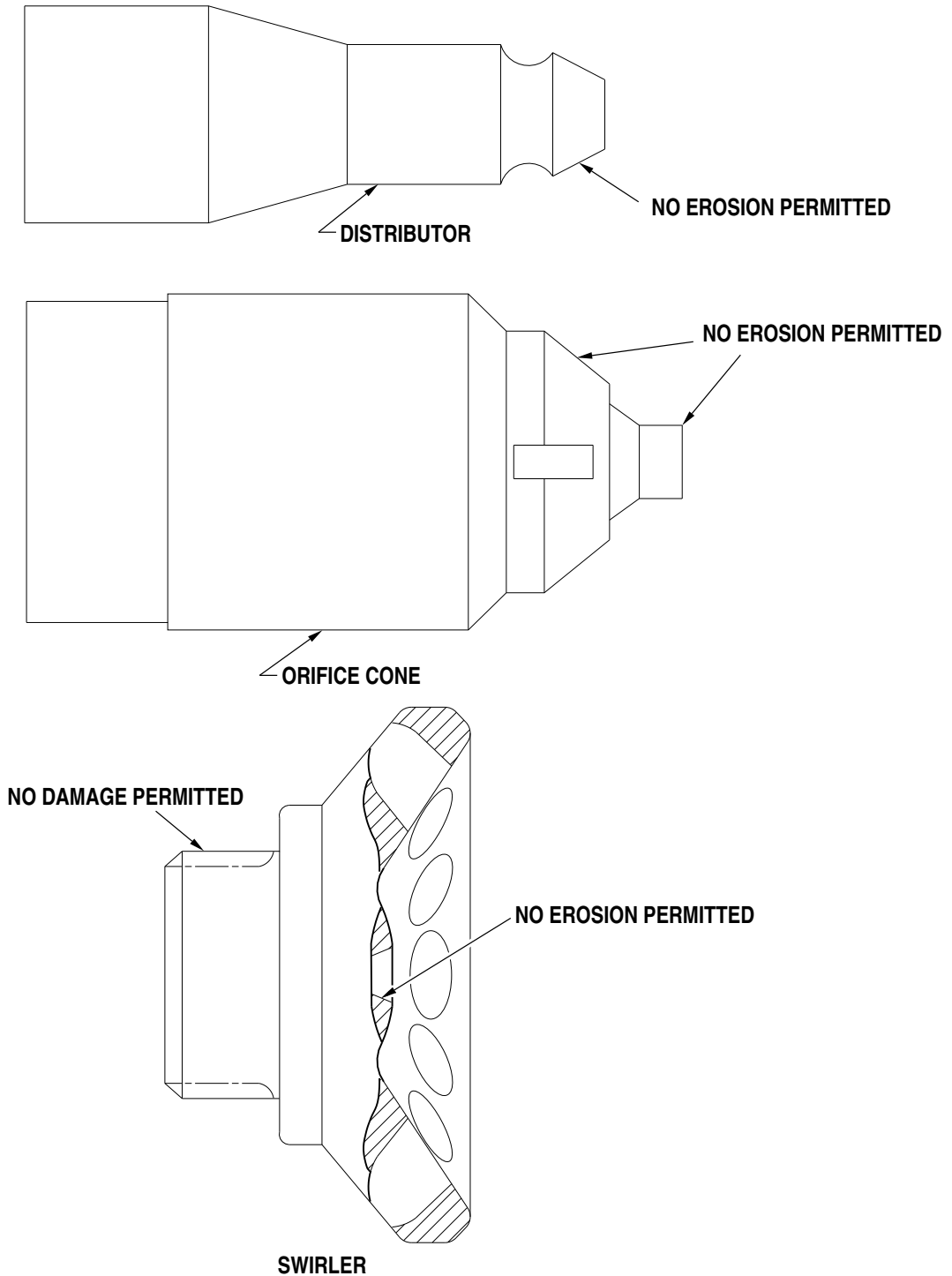
- 1 Check the part for erosion; no erosion on the part is allowed. If erosion is found, discard the entire part.
- 2 Check the part for carbon. If you find carbon, clean the part (Refer to Cleaning).

(b) **Swirler:**

- 1 Check the part for erosion; no erosion on the part is allowed. If erosion is found, discard the entire part.
- 2 Check the part for carbon. If you find carbon, clean the part (Refer to Cleaning).
- 3 Check for cross, stripped or damaged threads. You can repair crossed or stripped threads (Refer to Repair, Subtask 73-10-05-350-005). If the threads have more than small damage, discard and replace the part.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CHECK



ICN-00198-G000009751-001-01

Visual Inspection - Distributor, Orifice Cone, Swirler (Configs A01, A02)

Figure 5003

(Task 73-10-05-220-801)

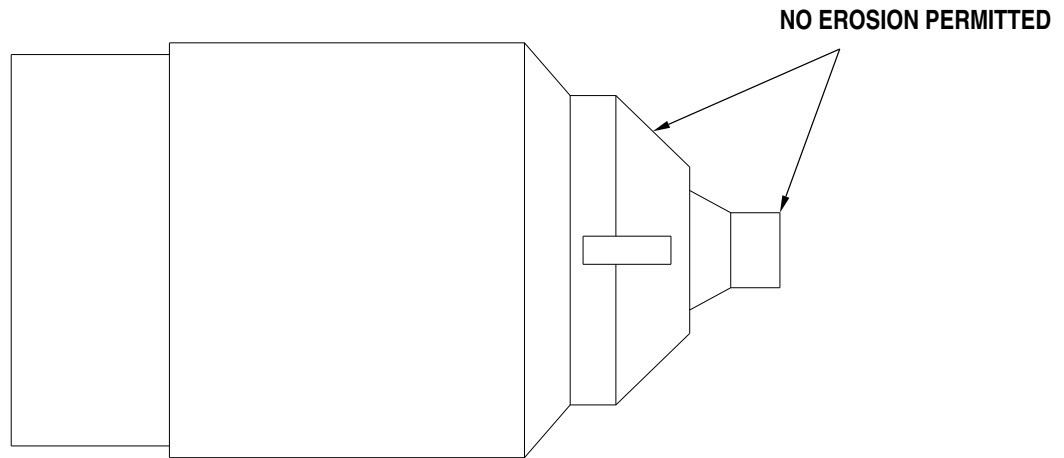
73-10-05
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Page 5012
Jan 17/2020

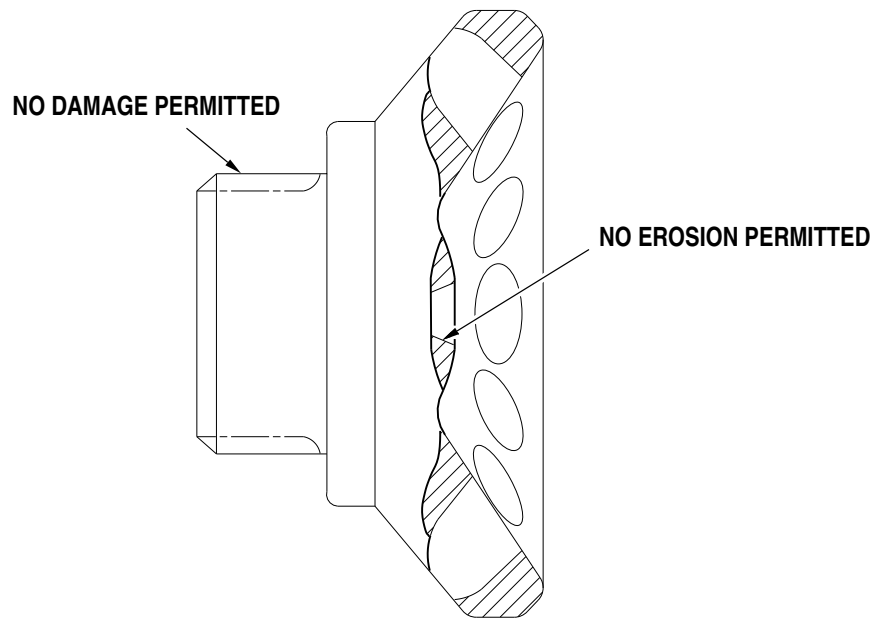
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PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

CHECK



ORIFICE CONE



SWIRLER

C213872

Visual Inspection - Orifice, Fuel Swirler (Configs B01, B02)
Figure 5004
(Task 73-10-05-220-801)

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73-10-05
CHECK

Page 5013/5014
Jan 17/2020

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

REPAIR

Task 73-10-05-99F-801

1. General / Introduction

- A. This pageblock gives you the necessary data to repair the Fuel Nozzle Adapter Assembly. Refer to Table 6001, Related Tasks.
- B. If the part is not in the serviceable limits, put the part assembly in a polyethylene bag (PWC05-054) (Refer to Storage) and return the part to Pratt & Whitney Component Solutions Inc. (refer to Introduction).

TABLE 6001, Related Tasks
(Task 73-10-05-99F-801)

Task Title(s)	Task(s)
Repair of the Fuel Nozzle Adapter Assembly	Task 73-10-05-300-801

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

REPAIR

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PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

REPAIR

Task 73-10-05-300-801

2. Repair of the Fuel Nozzle Adapter Assembly

A. General

CAUTION: WHERE POSSIBLE, USE SURGICAL GLOVES, NON-LATEX GLOVES, OR CLEAN LINT-FREE COTTON GLOVES WHEN YOU TOUCH THE FUEL NOZZLE ASSEMBLY. YOUR FINGERPRINTS ON THE ORIFICE OF THE FUEL NOZZLE ASSEMBLY CAN AFFECT THE QUALITY OF THE SPRAY.

- (1) This task gives you the procedures to do minor repairs to the Fuel Nozzle Adapter assembly.
- (2) Repairs to the part are limited to removing raised metal from nicks or burrs. Permissible repairs are shown with specific repair procedures. Items that are bent or display other damage that can interfere with correct operation must be replaced unless repair procedures are shown.
- (3) All persons who repair the engine components must read and understand the procedures given in the PWA Standard Practices Manual (SPM), P/N 585005.
- (4) In the text, the consumables include a PWC item number: for example, PWC03-002. For more data, refer to the PWC Consumable Materials List (CML), P/N 3043340.
- (5) Refer to Table 6002, Related Subtasks for the subtask (s) that you need.

TABLE 6002, Related Subtasks
(Task 73-10-05-300-801)

Subtask Title(s)	Subtask(s)
Repair - Small Surface Scratches	Subtask 73-10-05-350-001
Repair - Raised Metal Surfaces	Subtask 73-10-05-350-002
Repair - Raised Metal on Threads	Subtask 73-10-05-350-003
Repair - Crossed or Stripped Threads in the Support	Subtask 73-10-05-350-004
Repair - Crossed or Stripped Threads of the Swirler	Subtask 73-10-05-350-005
Repair - Preformed Packing Groove	Subtask 73-10-05-350-006

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

REPAIR

B. Job Set-Up Information

Subtask 73-10-05-94A-004

(1) Consumables

TABLE 6003, Consumables
(Task 73-10-05-300-801)

Part Number	Name	Source (CML Code)
PWC03-002	Fluid, Calibrating MIL-PRF-7024 Type II	Local Purchase (A0001)
PWC05-100	Abrasive, Flexible Stone	
<u>NOTE:</u> You can use equivalent substitutes for the consumables that show in this table.		

Subtask 73-10-05-94C-004

(2) Fixtures / Test Equipment

TABLE 6004, Fixtures / Test Equipment
(Task 73-10-05-300-801)

Part Number	Name	Source (CAGE Code)
Not Applicable	Microscope, 10X Power with Illumination	Local Purchase
	0.3125-32 UNJEF-3A Die	
	0.3125-32 UNJEF-3B Tap	
<u>NOTE:</u> You can use equivalent substitutes for the Fixtures/Test Equipment that show in this table.		
<u>NOTE:</u> When you do a check, use the microscope at 10X power maximum unless specified otherwise.		

Subtask 73-10-05-99E-005

(3) References

TABLE 6005, References
(Task 73-10-05-300-801)

Reference	Manual Part Number
PWC Consumable Materials List (CML)	3043340

C. Procedure

Subtask 73-10-05-350-001

(1) Repair - Small Surface Scratches

(a) Use a flexible abrasive stone (PWC05-100) to remove small surface scratches.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

REPAIR

- (b) Hold the housing assembly with stem support facing downward and rinse stem support in a calibration fluid (PWC03-002).
- (c) Use dry low-pressure filtered-shop-air at 30 psig (207 kPag) and blow the components until they become dry.
- (d) Inspect again for small surface scratches. If you find scratches, do all the steps over again.

Subtask 73-10-05-350-002

(2) Repair - Raised Metal Surfaces

- (a) Use a flexible abrasive stone (PWC05-100) to remove raised material to surrounding surface levels.
- (b) Hold the housing assembly with stem support facing downward and rinse stem support in calibration fluid (PWC03-002).
- (c) Use dry low-pressure filtered-shop-air at 30 psig (207 kPag) and blow the components until they become dry.
- (d) Inspect again for raised material. If you find raised material, do all the steps over again.

Subtask 73-10-05-350-003

(3) Repair - Raised Metal on Threads

- (a) Use a flexible abrasive stone (PWC05-100) to remove raised material to surrounding surface levels.
- (b) Hold the housing assembly with stem support facing downward and rinse stem support in calibration fluid (PWC03-002).
- (c) Use dry low-pressure filtered-shop-air at 30 psig (207 kPag) and blow the components until they become dry.
- (d) Inspect again for raised material. If you find raised material, do all the steps over again.

Subtask 73-10-05-350-004

(4) Repair - Crossed or Stripped Threads in the Support

- (a) Chase the threads with a 0.3125-32 UNJEF-3A Mod tap.
- (b) Hold the housing assembly with stem support facing downward and rinse stem support in calibration fluid (PWC03-002).
- (c) Use dry low-pressure filtered-shop-air at 30 psig (207 kPag) and blow the components until they become dry.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

REPAIR

- (d) Inspect again for crossed or stripped threads. If you find crossed or stripped threads, do all the steps over again.

Subtask 73-10-05-350-005

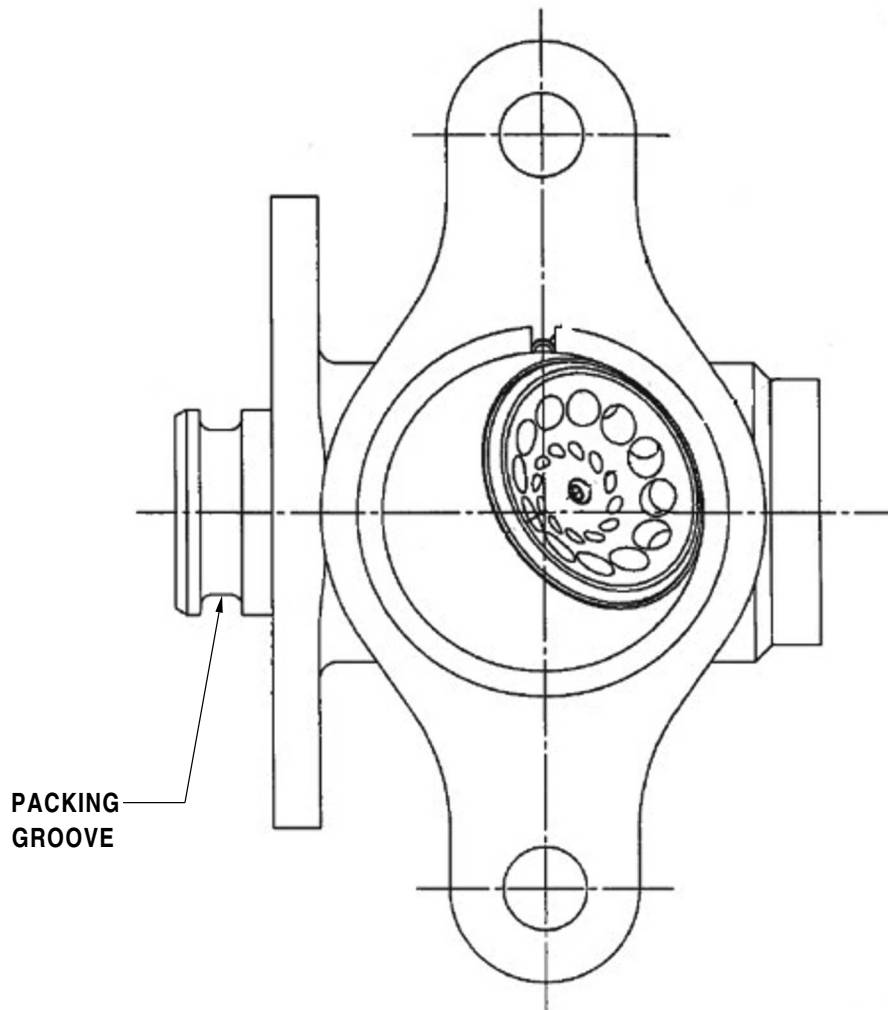
- (5) Repair - Crossed or Stripped Threads of the Swirler
 - (a) Chase the threads with 0.3125-32 UNJEF-3A Die.
 - (b) Rinse the swirler in calibration fluid (PWC03-002).
 - (c) Use dry low-pressure filtered-shop-air at 30 psig (207 kPag) and blow the components until they become dry.
 - (d) Inspect again for crossed or stripped threads. If you find crossed or stripped threads, do all the steps over again.

Subtask 73-10-05-350-006

- (6) Repair - Preformed Packing Groove (Refer to Figure 6001)
 - (a) Use a flexible abrasive stone (PWC05-100) to remove raised material and sharp edges on the packing groove.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

REPAIR



NOZZLE ASSEMBLY (TYPICAL)

C231896

Repair - Preformed Packing Groove
Figure 6001
(Task 73-10-05-300-801)

EFF: ALL

73-10-05
REPAIR

Page 6007/6008
Jan 17/2020

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ASSEMBLY

Task 73-10-05-99F-801

1. General / Introduction

- A. This pageblock gives you the necessary data to assemble the Fuel Nozzle Adapter Assembly. Refer to Table 7001, Related Tasks.

TABLE 7001, Related Tasks
(Task 73-10-05-99F-801)

Task Title(s)	Task(s)
Assembly of the Fuel Nozzle Adapter Assembly (All Configs)	Task 73-10-05-460-801

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ASSEMBLY

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73-10-05
ASSEMBLY

Page 7002
Sep 29/2017

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ASSEMBLY

Task 73-10-05-460-801

2. Assembly of the Fuel Nozzle Adapter (All Configs)

A. General

CAUTION: MAKE SURE YOU KEEP ALL THE NOZZLE TIP COMPONENTS TOGETHER. DO NOT MIX PARTS.

- (1) This task gives you the necessary data to assemble the Fuel Nozzle Adapter Assembly.
- (2) All persons who assemble the engine components must read and understand the procedures given in the PWA Standard Practices Manual (SPM), P/N 585005.
- (3) In the text, the consumables include a PWC item number: for example, PWC03-002. For more data, refer to the PWC Consumable Materials List (CML), P/N 3043340.
- (4) Refer to Table 7002, Related Subtasks for the subtask you need.

TABLE 7002, Related Subtasks
(Task 73-10-05-460-801)

Subtask Title(s)	Subtask(s)
Assembly of Fuel Nozzle Adapter Assembly	Subtask 73-10-05-470-001

B. Job Set-Up Information

Subtask 73-10-05-94A-005

- (1) Consumables

TABLE 7003, Consumables
(Task 73-10-05-460-801)

Item Number	Material	Source (CML Code)
PWC03-005	Oil, Engine Lubricating Mobil D. T. E. Oil Light	Local Purchase (A0001)
PWC03-002	Fluid, Calibration MIL-PRF-7024 Type II	

NOTE: You can use equivalent substitutes for the consumables that show in this table.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ASSEMBLY

Subtask 73-10-05-94B-003

(2) Special Tools / Non Standard Tools

TABLE 7004, Special Tools / Non Standard Tools
(Task 73-10-05-460-801)

Part Number	Name	Source (CAGE Code)
PWC70728	Crowfoot, Tip Installation	Pratt & Whitney Canada Corp. (00198)
PWC71041	Tool, Strainer Installation	
PWC72522	Holder, Fuel Nozzle	

NOTE: You can use equivalent substitutes for the tools that show in this table.

Subtask 73-10-05-99E-006

(3) References

TABLE 7005, References
(Task 73-10-05-460-801)

Reference	Manual Part Number
PWC Consumable Materials List (CML)	3043340

C. Procedure

WARNING: BEFORE USING THE CONSUMABLE MATERIALS LISTED IN THIS PUBLICATION, BE AWARE OF ALL HANDLING, STORAGE AND DISPOSAL PRECAUTIONS RECOMMENDED BY THE MANUFACTURER. FAILURE TO COMPLY WITH MANUFACTURERS RECOMMENDATIONS CAN RESULT IN INJURY OR DISEASE.

WARNING: WHEN USING COMPRESSED AIR FOR DRYING, WEAR GOGGLES OR FACE SHIELD TO PROTECT EYES.

CAUTION: KEEP PARTS OF EACH NOZZLE ASSEMBLY TOGETHER IN CLEAN, INDIVIDUAL PLASTIC TRAYS TO PROTECT SEALING SURFACES FROM NICKING OR BURRING. DO NOT MIX PARTS FROM OTHER NOZZLE ASSEMBLIES.

CAUTION: FINGERPRINTS ON NOZZLE ASSEMBLY ORIFICE MAY AFFECT SPRAY PATTERN. AVOID MECHANICAL DAMAGE FROM CARELESS HANDLING.

Subtask 73-10-05-470-001-A01

(1) Assembly of Fuel Nozzle Adapter (Config A) (Refer to Figure 7001)

CAUTION: MAKE SURE YOU KEEP ALL THE NOZZLE TIP COMPONENTS TOGETHER. DO NOT MIX PARTS.

(a) **Cleaning:** Rinse the parts in calibration fluid (PWC03-002) to eliminate dust particles which can accumulate in storage and affect nozzle assembly performance.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ASSEMBLY

(b) Dry parts thoroughly, with dry, low pressure filtered shop air.

NOTE: Work areas are to be well lit, clean and contaminant free.

NOTE: Lubricate mating surfaces and fixtures with light lubricating oil (PWC03-005).

(c) Install the adapter body in a holder (PWC72522).

(d) **Tip Assembly:**

1 Insert the distributor into orifice cone and bottom. Insert orifice cone into the swirler and bottom.

(e) Tip Assembly to Housing Assembly:

1 Insert the seal into stem of support and bottom.

2 Lubricate threads of tip assembly with light lubricating oil (PWC03-005).

3 Place locking washer on seal surface of stem support.

4 Thread tip assembly into to the stem support and hand tighten.

5 Align two triangle tabs of locking washer and insert tip assembly.

6 Use a crowfoot (PWC70728) and torque to 55 to 65 lb.in. (6.21-7.34 Nm).

7 Align the two triangle tabs of the locking washer (60) so that they can be formed onto two flats of the nozzle hex. The long single tab is aligned with the flat of the stem support opposite the triangle tabs.

8 Bend the tabs of the washer.

Subtask 73-10-05-470-002-A01

(2) Installation of Sheath on Housing Assy (Config A) (Refer to Figure 7002)

(a) Install the sheath (100) on the housing assembly (1) and lower onto the part. Make sure it is seated correctly.

(b) Do a flow test on the part (refer to Testing section).

Subtask 73-10-05-470-003-A01

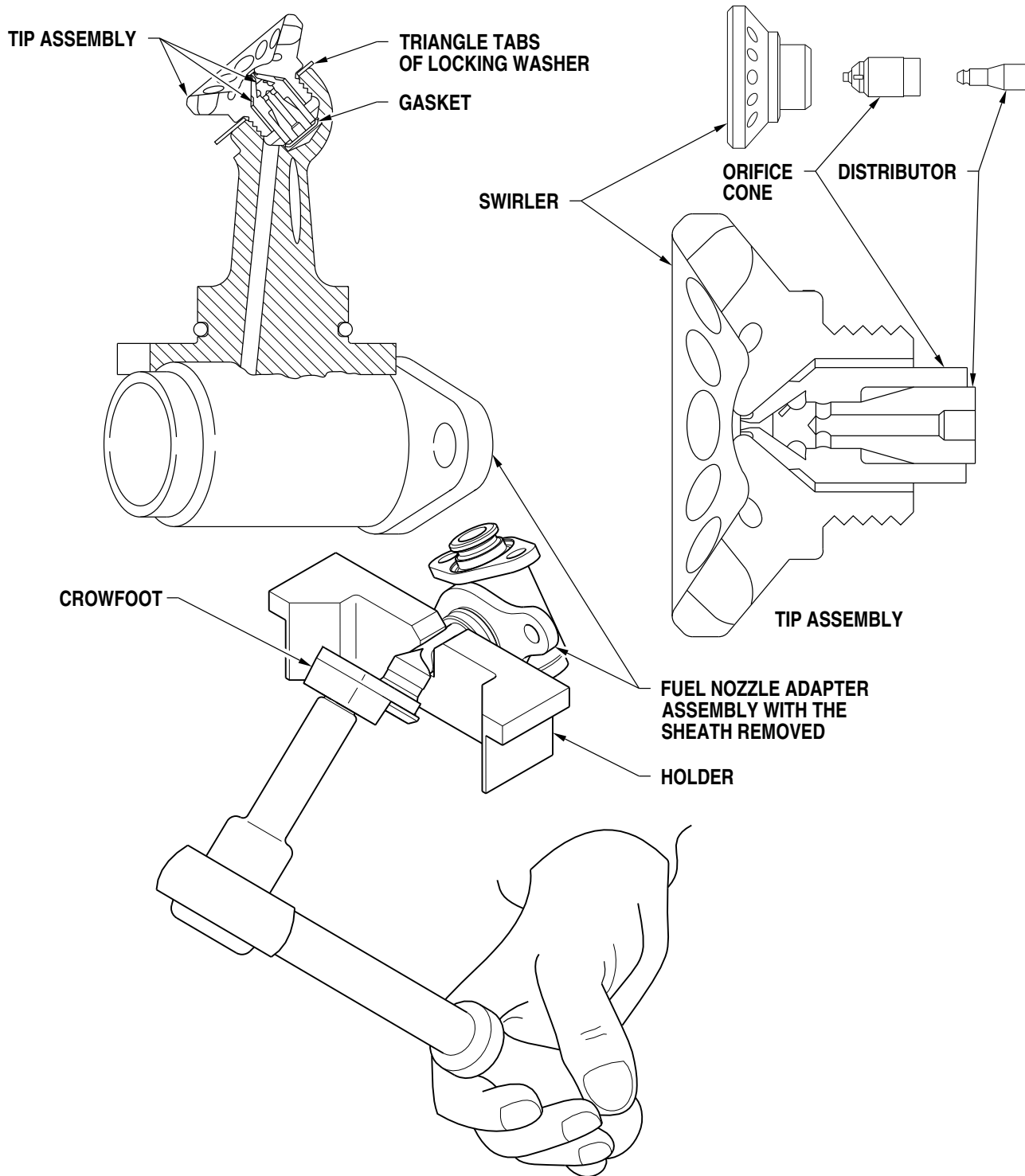
(3) Installation of Strainer (Config A) (If Required) (Refer to Figure 7003)

(a) **This step is only required if the strainer was removed due to damage and/or heavy varnish build-up on both the strainer and the inlet port.** Select a new fuel strainer (refer to IPL for the correct part number).

(b) Put the new fuel strainer into position in the fuel nozzle assembly with the strainer installation tool from the strainer installation tool kit (PWC71041).

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ASSEMBLY



C215807

Nozzle Assembly - Tip Assembly
Figure 7001 (Sheet 1 of 2)
(Task 73-10-05-460-801)

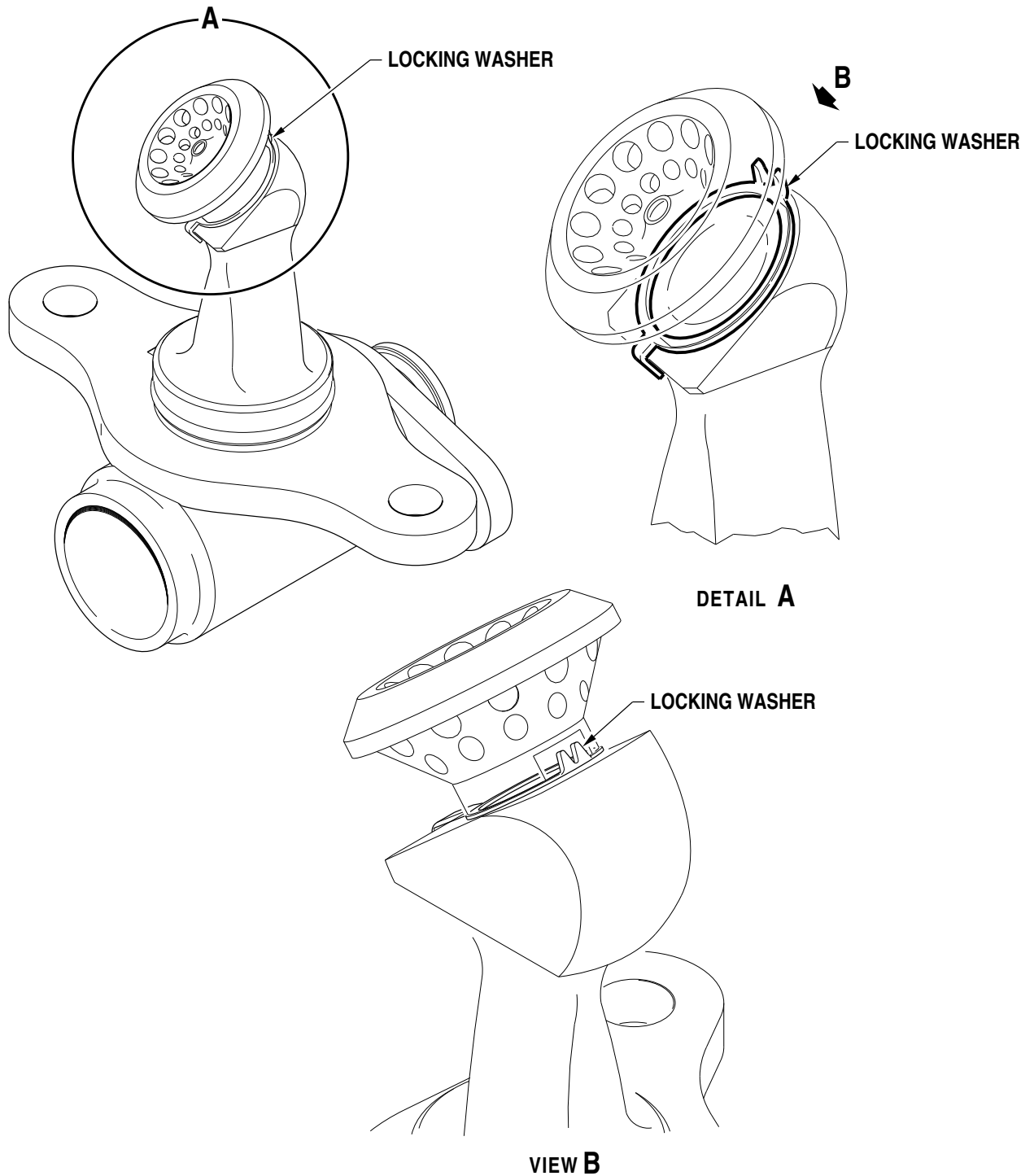
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73-10-05
ASSEMBLY

Page 7006
Sep 29/2017

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ASSEMBLY



C102128

Nozzle Assembly - Tab Alignment
Figure 7001 (Sheet 2)
(Task 73-10-05-460-801)

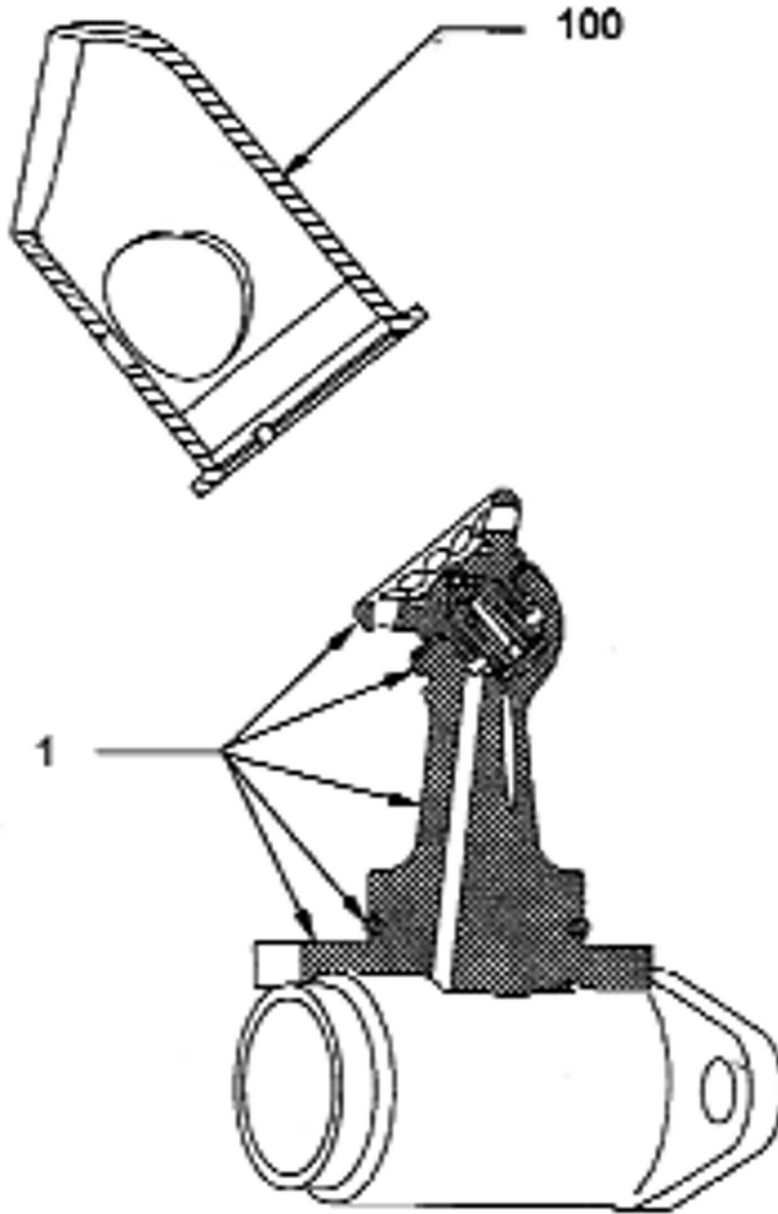
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73-10-05
ASSEMBLY

Page 7007
Sep 29/2017

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ASSEMBLY



C215087

Installation of Sheath on Housing Assy
Figure 7002
(Task 73-10-05-460-801)

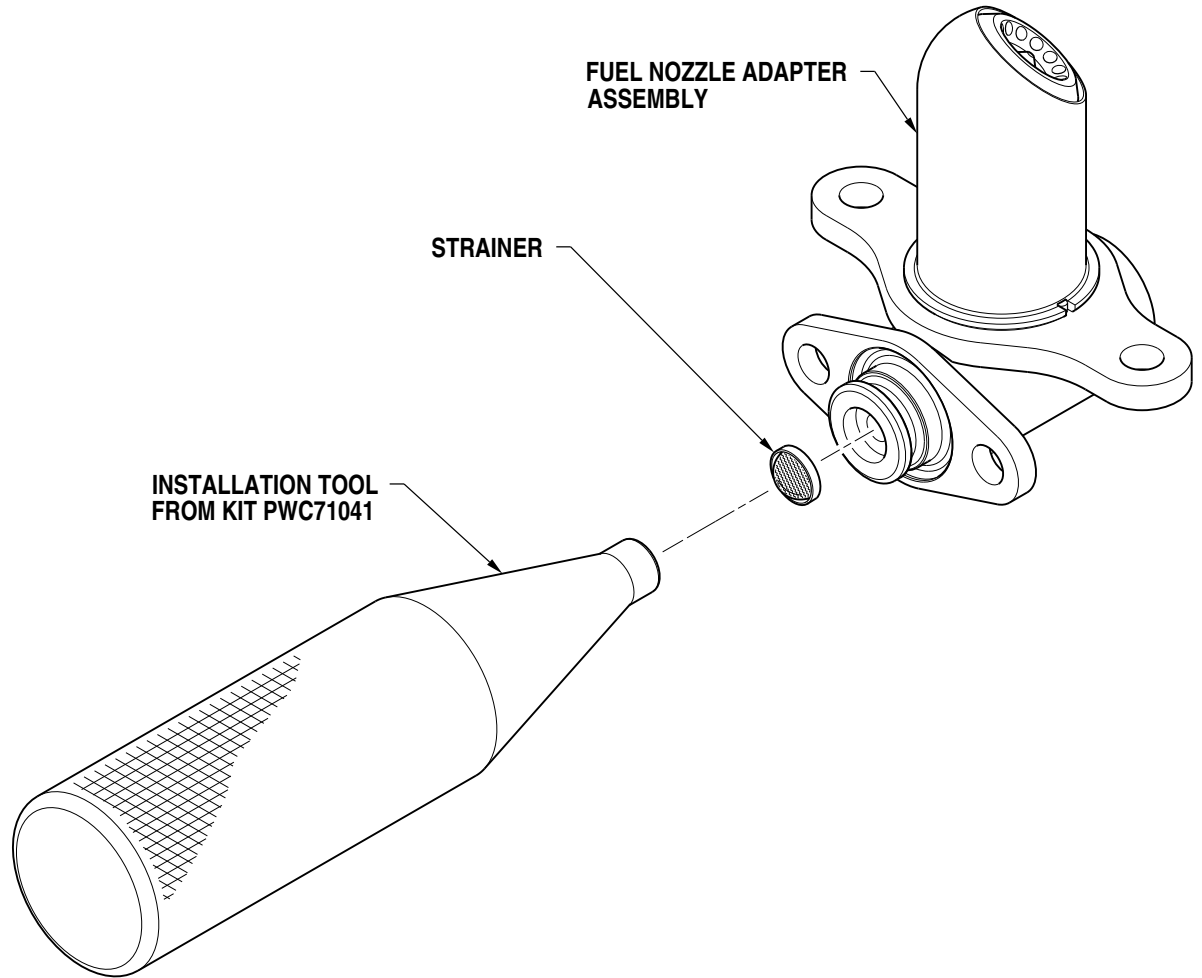
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73-10-05
ASSEMBLY

Page 7008
Sep 29/2017

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ASSEMBLY



ICN-00198-G000009656-001-01

Installation of Strainer (Config A) (If Required)
Figure 7003
(Task 73-10-05-460-801)

73-10-05
ASSEMBLY

Page 7009
Sep 29/2017

EFF: ALL

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ASSEMBLY

Subtask 73-10-05-470-001-B01

(4) Assembly of Fuel Nozzle Adapter (Config B) (Refer to Figure 7004)

CAUTION: MAKE SURE YOU KEEP ALL THE NOZZLE TIP COMPONENTS TOGETHER. DO NOT MIX PARTS.

- (a) **Cleaning:** Rinse parts in calibration fluid (PWC03-002), to eliminate dust particles which can accumulate in storage, and which can affect nozzle assembly performance.
- (b) Dry parts thoroughly, with dry, low pressure filtered shop air.

NOTE: Make sure the work areas are to be well lit, clean and contaminant free.

NOTE: Lubricate mating surfaces and fixtures with light lubricating oil (PWC03-005).

(c) **Tip Assembly:**

1 Insert fuel swirler into swirler and bottom.

(d) Tip Assembly to Housing Assembly:

1 Insert seal into stem of support and bottom.

2 Lubricate threads of tip assembly with light lubricating oil (PWC03-005).

3 Place locking washer on seal surface of stem support.

4 Thread tip assembly into to the stem support and hand-tighten.

5 Align two triangle tabs of locking washer and insert tip assembly.

6 Use a crowfoot (PWC70728) and torque to 55 to 65 lb.in. (6.21-7.34 Nm).

NOTE: Align the two triangle tabs of the locking washer (60) so that they can be formed onto two flats of the nozzle hex. The long single tab is aligned with the flat of the stem support opposite the triangle tabs.

NOTE: Do not bend the tabs into the final position until after passing the flow test requirements.

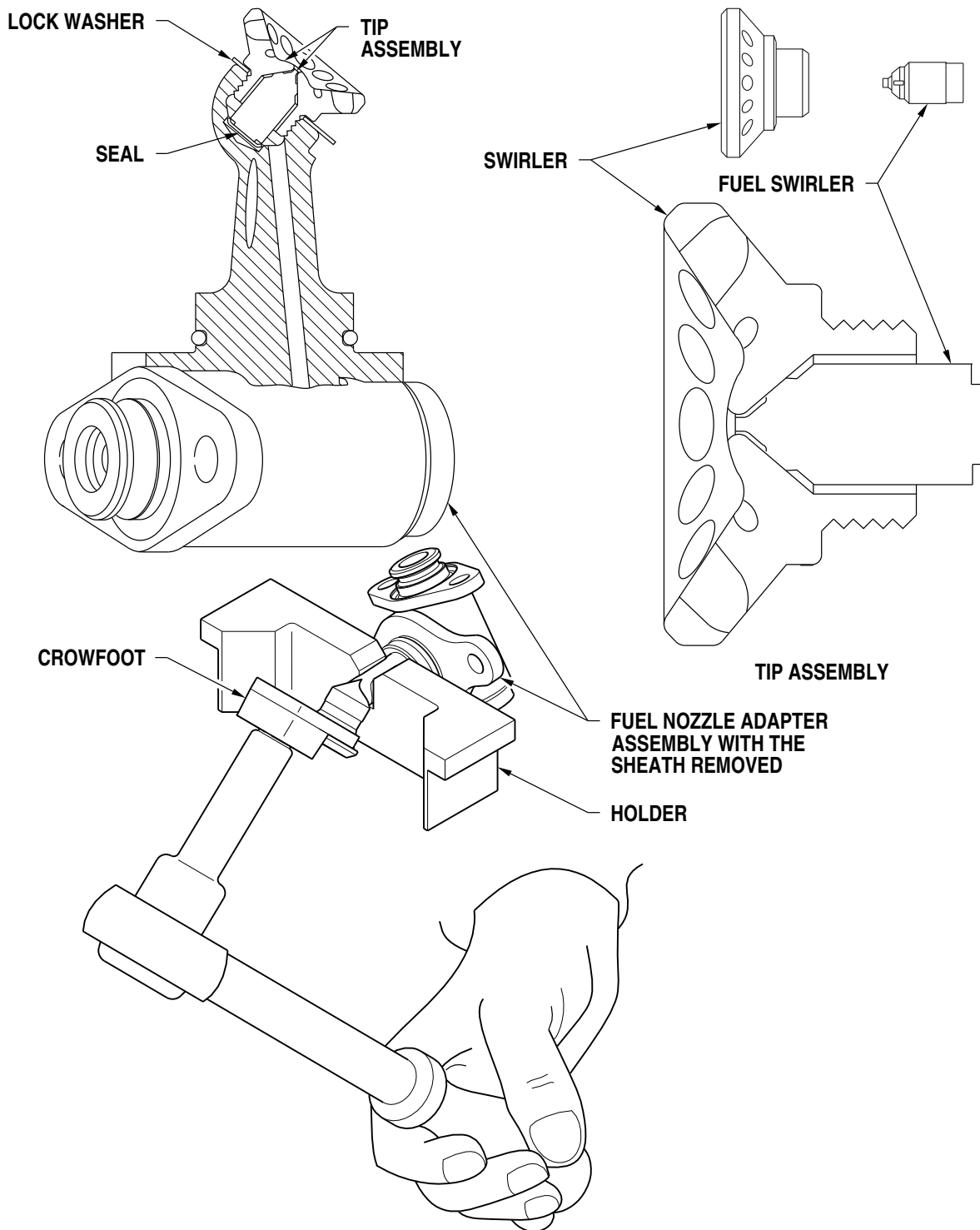
Subtask 73-10-05-470-002-B01

(5) Installation of Sheath on Housing Assy (Config B) (Refer to Figure 7005)

- (a) Assemble the sheath (90) onto the housing assembly (1) and lower onto the part. Make sure it is seated correctly.
- (b) Do a flow test on the part (refer to Testing section).

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ASSEMBLY



C215808

Nozzle Assembly - Tip Assembly
Figure 7004 (Sheet 1 of 2)
(Task 73-10-05-460-801)

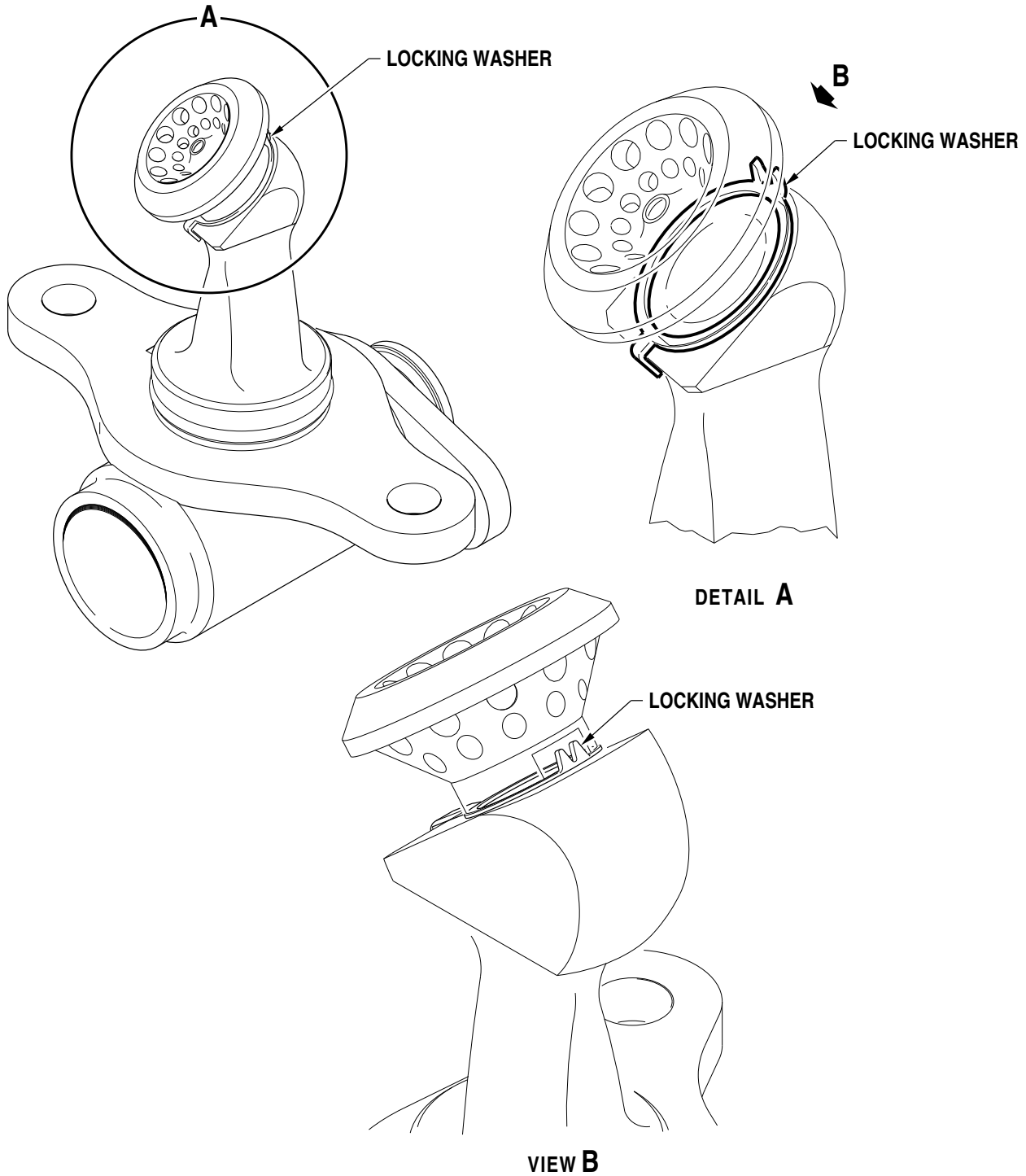
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73-10-05
ASSEMBLY

Page 7011
Sep 29/2017

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ASSEMBLY



C102128

Nozzle Assembly - Tab Alignment
Figure 7004 (Sheet 2)
(Task 73-10-05-460-801)

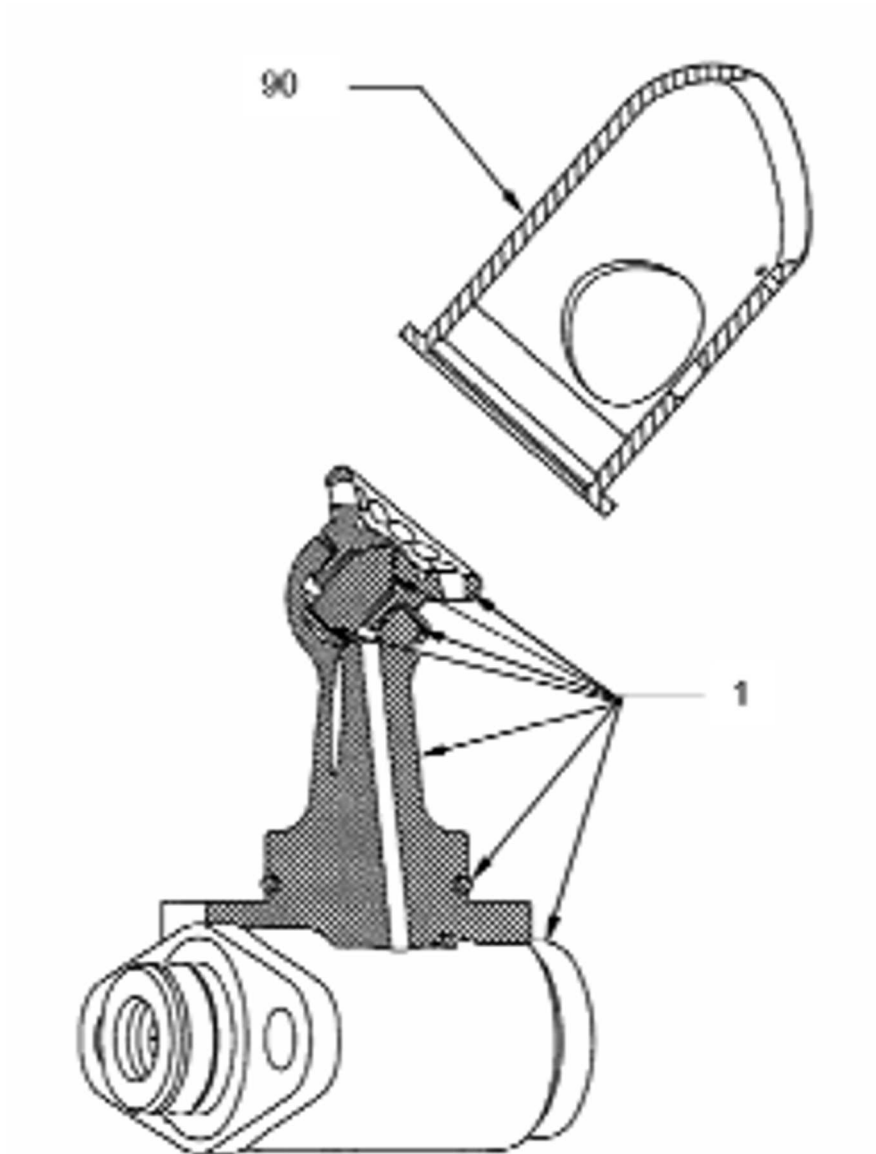
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73-10-05
ASSEMBLY

Page 7012
Sep 29/2017

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ASSEMBLY



C215086

Installation of Sheath on Housing Assy
Figure 7005
(Task 73-10-05-460-801)

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73-10-05
ASSEMBLY

Page 7013
Sep 29/2017

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

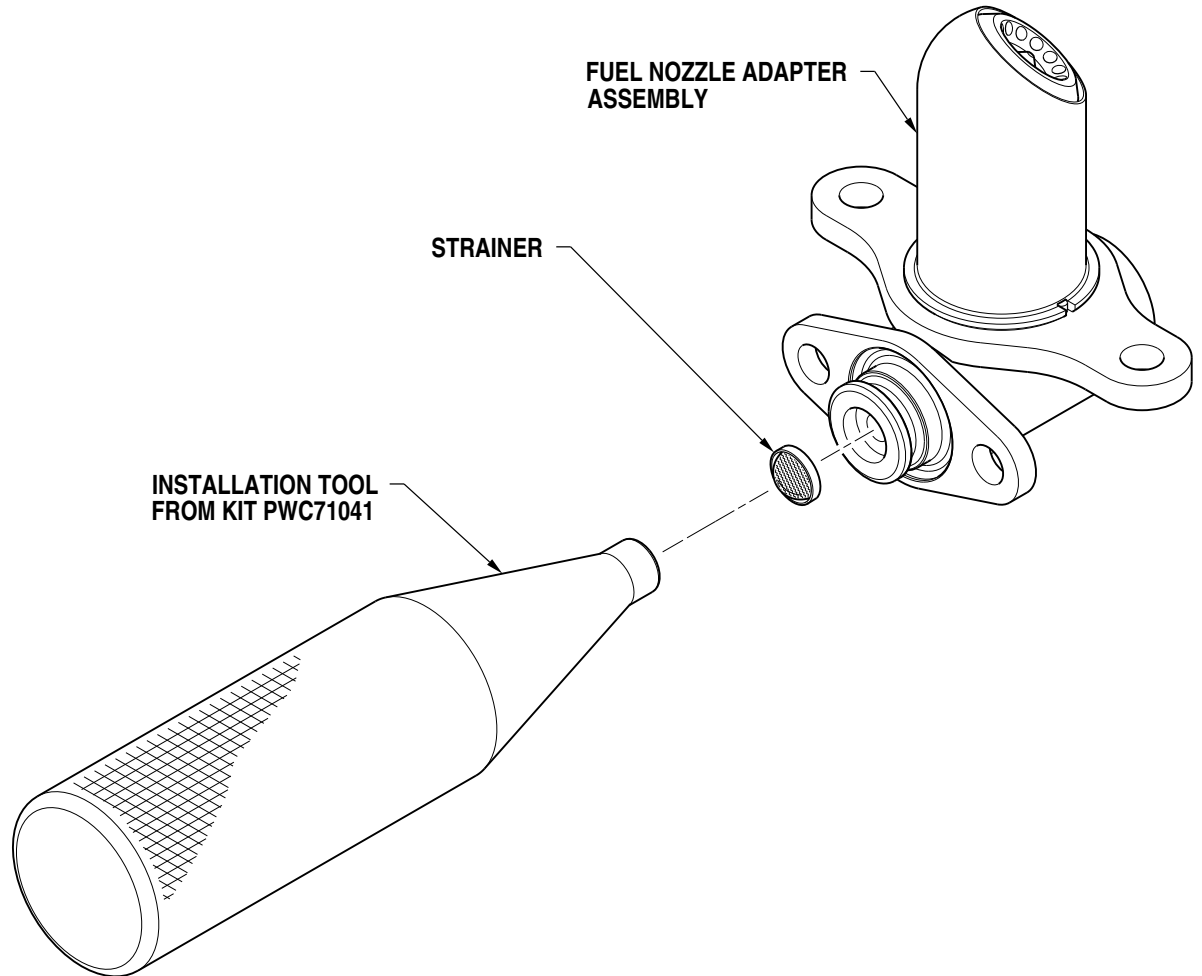
ASSEMBLY

Subtask 73-10-05-470-003-B01

- (6) Installation of Strainer (Config B) (If Required) (Refer to Figure 7006)
- (a) **This step is only required if the strainer was removed due to damage and/or heavy varnish build-up on both the strainer and the inlet port.** Select a new fuel strainer (refer to IPL for the correct part number).
 - (b) Put the new fuel strainer into position in the fuel nozzle assembly with the strainer installation tool from the strainer installation tool kit (PWC71041).

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ASSEMBLY



ICN-00198-G000009656-001-01

Installation of Strainer (Config B) (If Required)
Figure 7006
(Task 73-10-05-460-801)

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73-10-05
ASSEMBLY

Page 7015/7016
Sep 29/2017

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

FITS AND CLEARANCES

NOT APPLICABLE

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COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLES

Task 73-21-04-99F-801

1. General / Introduction

- A. This pageblock gives you all the data applicable to the tools, fixtures, equipment and consumables needed to do all the tasks for the Fuel Manifold Adapter Assembly. Refer to Table 9001, Related Tasks.

TABLE 9001, Related Tasks
(Task 73-21-04-99F-801)

Task Title(s)	Task(s)
Tools, Fixtures, Equipment and Consumables	Task 73-10-05-99E-801

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COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLES

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73-10-05

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TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLES

Page 9002
Jan 17/2020

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLES

Task 73-10-05-99E-801

2. Special Tools, Fixtures, Equipment and Consumables

A. General/Introduction

- (1) This task contains all the data for all the tools, fixtures, equipment and consumables needed to do all the tasks for the Fuel Manifold Adapter Assembly.
- (2) All persons who do tasks from this manual must read and understand the procedures given in the PWA Standard Practices Manual (SPM), P/N 585005.
- (3) In the text, the consumables include a PWC item number: for example, PWC03-002. For more data, refer to the PWC Consumable Materials List (CML), P/N 3043340.
- (4) Refer to Table 9002, Related Subtasks for the subtask you need.

TABLE 9002, Related Subtask(s)
(Task 73-10-05-99E-801)

Subtask(s)	Subtask(s) Number
Consumables	Subtask 73-10-05-94A-006
Special Tools/Non Standard Tools	Subtask 73-10-05-94B-004
Fixtures/Test Equipment	Subtask 73-10-05-94C-005
Standard Tools	Subtask 73-10-05-94D-003
Slave Parts	Subtask 73-10-05-99A-002
References	Subtask 73-10-05-99E-007

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLES

B. Job Set-up Information

Subtask 73-10-05-94A-006

(1) Consumables

TABLE 9003, Consumables
(Task 73-10-05-99E-801)

Item Number	Material	Source (CML Code)
PWC03-001	Oil, Engine Lubricating	Local Purchase (A0001)
PWC03-002	Fluid, Calibrating MIL-PRF-7024 Type II	
PWC03-005	Oil, Engine Lubricating Mobil D. T. E. Oil Light	
PWC05-054	Bag, polyethylene (Size as Required)	
PWC05-061	Cloth, Crocus	
PWC05-073	Water, Distilled, Deionized or Demineralized	
PWC05-078	Oil, Releasing	
PWC05-100	Abrasive, Flexible Stone	
PWC05-280	Paper, Industrial Tissue, Wiping (Kimwipes)	Kimberly-Clark Corp. (33591)
PWC05-444	General Purpose Soap (Diri Lum 603)	Local Purchase (A0001) or Blue Wave Ultrasonics (0UU57) (http://bluewaveinc.com)
PWC11-014	Isopropyl Alcohol	Local Purchase (A0001) or Henkel North America (84063) (http://www.henkelnna.com)
PWC11-046	Rust Remover, Alkaline (TURCO ARR 4181L) Fed Spec TT-C-490 D	

NOTE: You can use equivalent substitutes for the consumables that show in this table.

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLES

Subtask 73-10-05-94B-004

(2) Special Tools / Non Standard Tools

TABLE 9004, Special Tools / Non Standard Tools
(Task 73-10-05-99E-801)

Part Number	Name	Source (CAGE Code)
PWC70728	Crowfoot, Tip Removal and Installation	Pratt & Whitney Canada Corp. (00198)
PWC71041	Tool, Strainer Installation	
PWC71082	Puller, Accessory (Fuel Nozzle)	
PWC72522	Holder, (Fuel Nozzle)	
None	Blades, Metal (Quantity 2)	Local Purchase or Supply
None	Refractometer, 0-50% range	Local Purchase
8500T14	Refractometer, hand 0-32% range solids 0.2% scale gradations	Local Purchase or McMaster Carr Supply (07BY4)
NOTE: You can use equivalent substitutes for the tools that show in this table.		

Subtask 73-10-05-94C-005

(3) Fixtures / Test Equipment

TABLE 9005, Fixtures / Test Equipment
(Task 73-10-05-99E-801)

Part Number	Name	Source (CAGE Code)
Not Applicable	Base, Fuel Nozzle Flow Test	CEL Aerospace Test Equipment Ltd. (3AS79)
PWC71086	Flow Test Fixture, Fuel Nozzle	Pratt & Whitney Canada Corp. (00198)
PWC72324	Fixture, Pressure Leak (Fuel Nozzles)	
PWC72520	Adapter, Fuel Nozzle Flow Test	

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLES

TABLE 9005, Fixtures / Test Equipment (Cont'd)
(Task 73-10-05-99E-801)

Part Number	Name	Source (CAGE Code)
Not Applicable	Ultrasonic Cleaner, 25-40 kHz	Local Purchase
	Corrosion Resistant, Sectioned, Steel Wire Mesh Baskets, designed for use in ultrasonics.	
	Microscope, 10X Power with Illumination	
	0.3125-32 UNJEF-3A Die	
	0.3125-32 UNJEF-3B Tap	
Not Applicable	Support, Fuel Adapter Housing	Local Manufacture
CEL 30119-1	Master Orifice Set	CEL Aerospace Test Equipment Ltd. (3AS79)
CEL 30119-2	Optical Telescope	
CEL 50200-2	Test Stand	
<u>NOTE:</u> You can use equivalent substitutes for the Fixtures/Test equipment that show in this table.		
<u>NOTE:</u> When you do a check, use the microscope at 10X power maximum unless specified otherwise.		

Subtask 73-10-05-94D-003

(4) Standard Tools

TABLE 9006, Standard Tools
(Task 73-10-05-99E-801)

Part Number	Name	Source (CAGE Code)
GA 55-1	Brush, Nylon Bristle	Local Purchase
Not Applicable	Scribe, Plastic	
<u>NOTE:</u> You can use equivalent substitutes for the tools that show in this table.		

Subtask 73-10-05-99A-002

(5) Slave Parts

TABLE 9007, Slave Parts
(Task 73-10-05-99E-801)

Item Number	Material	Source (CAGE Code)
AS3209-13	Packing	Pratt & Whitney Canada Corp. (00198)

73-10-05

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

SPECIAL TOOLS, FIXTURES, EQUIPMENT AND CONSUMABLES

TABLE 9007, Slave Parts (Cont'd)
(Task 73-10-05-99E-801)

Item Number	Material	Source (CAGE Code)
<u>NOTE:</u> You can use equivalent substitutes for the tools that show in this table.		

Subtask 73-10-05-99E-007

(6) References

TABLE 9008, References
(Task 73-10-05-99E-801)

Reference	Manual Part Number
PWC Consumable Materials List (CML)	3043340

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ILLUSTRATED PARTS LIST

Task 73-10-05-950-801

1. Introduction

A. General

- (1) The purpose of this Illustrated Parts List is to enable the user to identify the available parts of the assembly. The assembly carries a part number indicated on the title page of this manual and a serial number engraved on the assembly.
- (2) If the part number is known, refer to the Detailed Parts List and locate the part number in the Part Number Column. The appropriate figure and item number will be found opposite to the part number. Turn to the indicated figure and confirm that a like part is illustrated with the proper item number. The text will then give the nomenclature of the part against the item number.
- (3) If part number is not known, locate the part on the illustration. Note the item number for the part and refer to the Detailed Parts List, where details of the item will be found.

B. Equipment Designator Index

- (1) Not Applicable.

C. Numerical Index

- (1) Not Applicable.

D. Alternate Vendor Index

- (1) Not Applicable.

E. Part Numbering System

- (1) The P&WC basic part numbering system consists of a numerical system of seven digits between 3000000 through 3999999. The basic part numbers may have letters and numbers to show parts available in a range of classes, and/or oversize-undersize dimensions. Dash numbers for each part number starts at -01, and up to -99. The complete number must be stated on procurement documentation to make sure the correct part is supplied. No special numbering system is used. Numbers are given to assemblies, subassemblies and details as needed.
- (2) The indentation system used in this Illustrated Parts List shows the item relationship. For an item, the indentation code shows an assembly or installation assembly in the left position, continuing down into succeeding columns until the end detail as follows:

1	2	3	4	5	6	7	
							Assembly or Group Descriptive Title
-							Detail Parts
-							Assembly
-							Attaching Parts Assembly
-	-						Detail Part for Assembly
-	-						Sub-Assembly
-	-						Attaching Parts For Sub-Assembly
-	-	-					Detail Parts For Sub-Assembly
-	-	-					Sub-Assembly
-	-	-					Attaching Parts For Sub-Assembly
-	-	-	-				Detail Parts for Sub-Assembly

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ILLUSTRATED PARTS LIST

(3) There is a Detailed Parts List for each section shown in the List of Chapter/Section/Subjects and there is a Table of Contents in front of each Detailed Parts List. Each Detailed Parts List is divided into six columns, as follows:

- Figure/Item
- Part Number
- Airline Part Number
- Nomenclature
- Effectivity Code
- Units per Assembly

a “-” in front of an item number tells the user the item is not shown in the figure.

F. Effectivity

(1) The Effectivity Code column establishes parts relationship with units or assemblies that are essentially the same but have small variations. These units or assemblies are the lead items on the Detailed Parts List. These items or assemblies shall be assigned reference letters such as A, B, C, D, etc. Parts that are not common to all configurations but are associated with one or more of the coded items shall carry the letter or letters assigned to the lead item with which it is associated. When a part is common to all lead items, the effectivity column is blank.

G. Units Per Assembly

(1) The quantity shown in the “Units Per Assy” column is the total quantity per assembly; the quantity of each detail part and/or subassembly indented under an assembly is the quantity used per assembly. For bulk items the letters “A/R” are inserted into the Units Per Assembly column to indicate “as required.” Where items are listed for reference purposes, “REF” is shown in the column.

H. List of Applicable Part Numbers and Figures

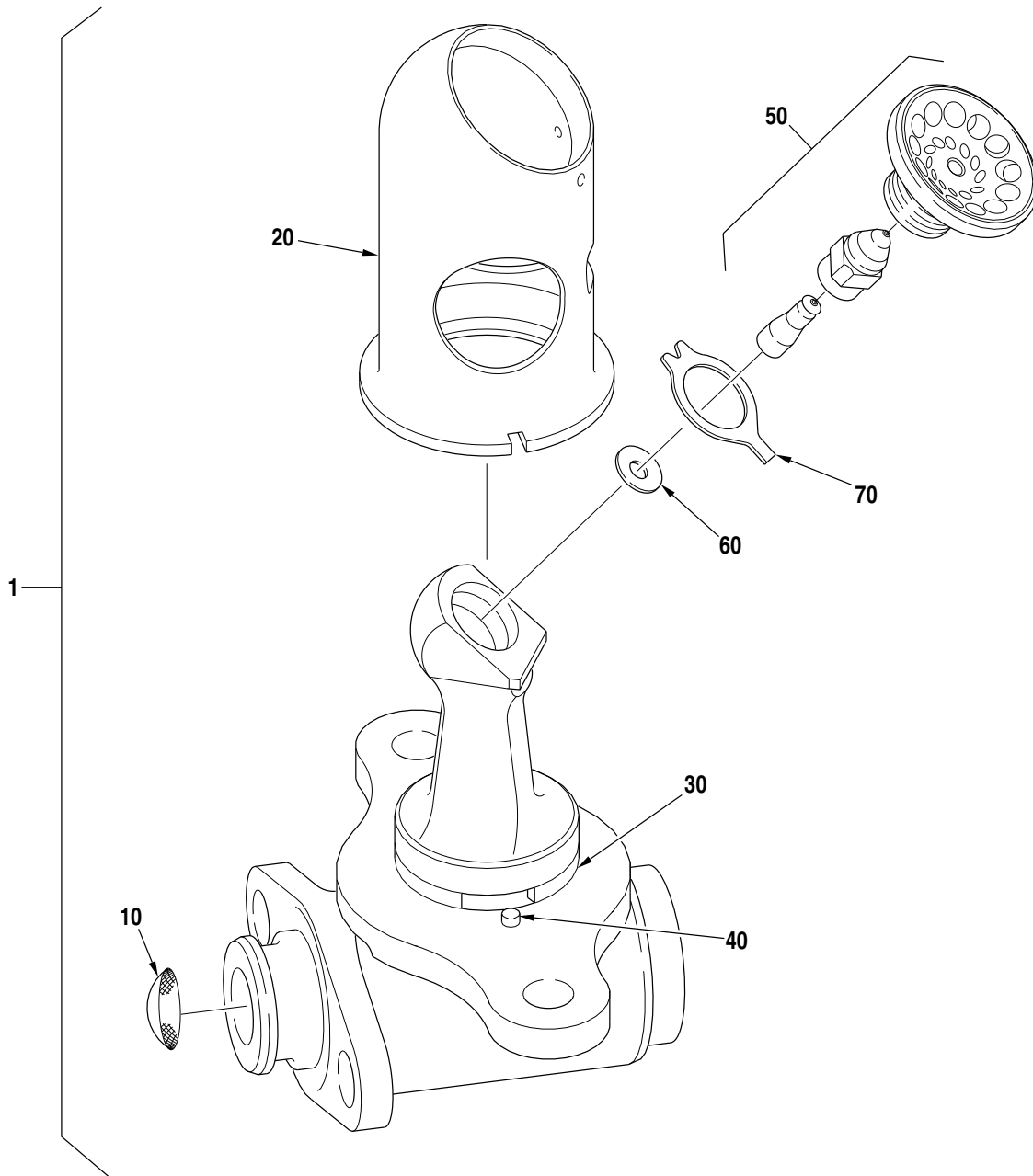
TABLE 10001, Applicable Part Numbers and Figures
(Task 73-10-05-950-801)

Fuel Nozzle Adapter Assembly Part Number	Applicable Figure Number and Configuration
3058617-01	Configurations A01 and A02 (Refer to Figure 1)
3073976-01	
3058932-01	Configurations B01, B02 and B03 (Refer to Figure 2)
3059126-01	
3073974-01	

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PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ILLUSTRATED PARTS LIST



ICN-00198-G000011501-001-01

Fuel Nozzle Adapter Assembly - Configs A01 and A02

Figure 1

73-10-05

ILLUSTRATED PARTS LIST

Page 10004
Sep 29/2017

EFF: CONFIGURATION - A

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PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

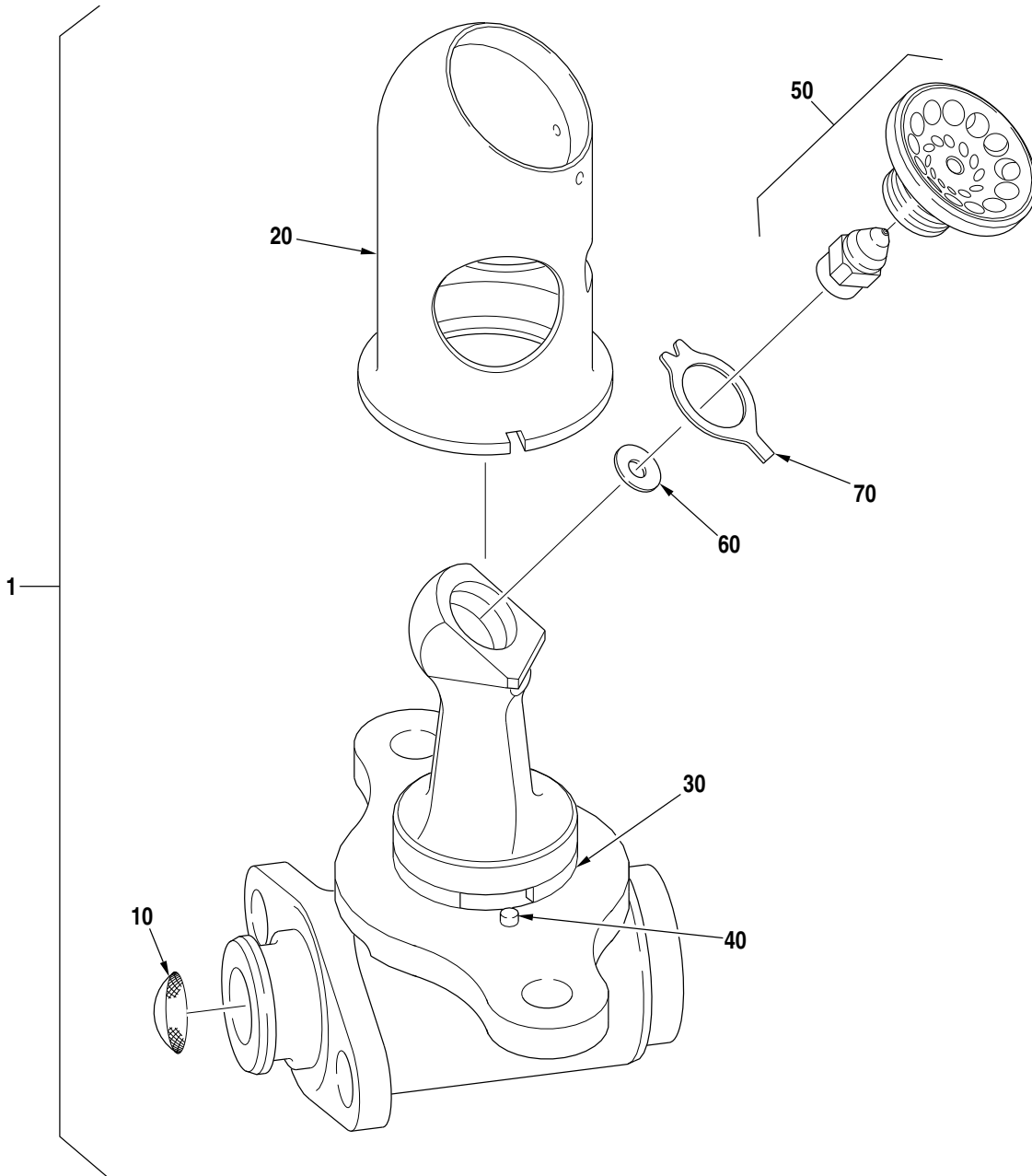
ILLUSTRATED PARTS LIST

FIG	ITEM	PART NUMBER	AIRLINE STOCK NUMBER	NOMENCLATURE 1234567	EFF CODE	UNIT PER ASSY
1	1	3058617-01		NOZZLE FUEL, ADAPTER AND STEM PRE-3053386-73-01	A01	REF
	-1A	3073976-01		NOZZLE FUEL, ADAPTER AND STEM POST-3053386-73-01	A02	REF
	10	3057373-01		.STRAINER, FUEL NOZZLE	ALL	1
	20	3057297-01		.SHEATH, FUEL NOZZLE	ALL	1
	30	3057378-01		.RING, FUEL NOZZLE	ALL	1
	40	AS9389-01		.PIN STRAIGHT 0.0625 X 0.125	ALL	1
	50	3058060-01		.NOZZLE, FUEL (PART OF 3058617-01) PRE-CSB 3053386-73-01	A01	NP
	-50A	3073977-01		.NOZZLE, FUEL (PART OF 3073976-01) POST-CSB 3053386-73-01	A02	NP
	60	3058337		.GASKET (IC), (CONSISTS OF OPTIONS 3039636, 3058335-01)	ALL	1
	-70	3058336-01		..WASHER, KEY, FUEL NOZZLE, (IC) (CONSISTS OF OPTIONS 3058334-01, 3023995) (PART OF 3058932-01, 3058617-01) PRE-CSB 3053386-73-01	B01	1
	-70A	3119854-01		..WASHER, KEY, FUEL NOZZLE (SEALING), (PART OF 3059126-01, 3073974-01) POST-CSB 3053386-73-01	ALL	1

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PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ILLUSTRATED PARTS LIST



ICN-00198-G000011502-001-01

Fuel Nozzle Adapter Assembly - Configs B01, B02 and B03
Figure 2

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COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

ILLUSTRATED PARTS LIST

FIG	ITEM	PART NUMBER	AIRLINE STOCK NUMBER	NOMENCLATURE 1234567	EFF CODE	UNIT PER ASSY
2	-1	3059126-01		NOZZLE FUEL, ADAPTER AND STEM PRE-CSB 3053386-73-01	B01	REF
	-1A	3073974-01		NOZZLE FUEL, ADAPTER AND STEM POST-CSB 3053386-73-01	B02	REF
	1B	3058932-01		NOZZLE FUEL, ADAPTER AND STEM	B03	REF
	10	3057373-01		.STRAINER, FUEL NOZZLE	ALL	1
	20	3057297-01		.SHEATH, FUEL NOZZLE	ALL	1
	30	3057378-01		.RING, FUEL NOZZLE	ALL	1
	40	AS9389-01		.PIN STRAIGHT 0.0625 X 0.125	ALL	1
	50	3058965-01		.NOZZLE, FUEL (PART OF 3058932-01)	B01	NP
	-50A	3059722-01		.NOZZLE, FUEL (PART OF 3059126-01) PRE-CSB 3053386-73-01	B01	NP
	-50B	3073975-01		.NOZZLE, FUEL (PART OF 3073974-01) POST-CSB 3053386-73-01	B02	NP
	60	3058337		.GASKET (IC), (CONSISTS OF OPTIONS 3039636, 3058335-01)	ALL	1
	70	3023995		..WASHER, KEY, FUEL NOZZLE (PART OF 3058932-01)	B01	1
	-70A	3058336-01		..WASHER, KEY, FUEL NOZZLE, (IC) (CONSISTS OF OPTIONS 3058334-01, 3023995) (PART OF 3058932-01) PRE-CSB 3053386-73-01	B01	1
	-70B	3119854-01		..WASHER, KEY, FUEL NOZZLE (SEALING), (PART OF 3059126-01, 3073974-01) POST-CSB 3053386-73-01	ALL	1

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

SPECIAL PROCEDURES

NOT APPLICABLE

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REMOVAL

NOT APPLICABLE

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INSTALLATION

NOT APPLICABLE

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COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

SERVICING

NOT APPLICABLE

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COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

STORAGE

Task 73-10-05-99F-801

1. General / Introduction

- A. This pageblock gives you the necessary data to store Fuel Nozzle Adapter Assembly. Refer to Table 15001, Related Tasks.

TABLE 15001, Related Tasks
(Task 73-10-05-99F-801)

Task Title(s)	Task(s)
Storage	Task 73-21-04-550-801

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

STORAGE

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PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

STORAGE

Task 73-10-05-550-801

2. Storage

A. General

CAUTION: WHERE POSSIBLE, USE SURGICAL GLOVES, NON-LATEX GLOVES, OR CLEAN LINT-FREE COTTON GLOVES WHEN YOU TOUCH THE FUEL NOZZLE ASSEMBLY. YOUR FINGERPRINTS ON THE ORIFICE OF THE FUEL NOZZLE ASSEMBLY CAN AFFECT THE QUALITY OF THE SPRAY.

- (1) This task gives you the necessary data to store your Fuel Nozzle Adapter Assembly.
- (2) All persons who store the engine components must read and understand the procedures given in the PWA Standard Practices Manual (SPM), P/N 585005.
- (3) In the text, the consumables include a PWC item number: for example, PWC03-002. For more data, refer to the PWC Consumable Materials List (CML), P/N 3043340.

B. Job Set-Up Information

Subtask 73-10-05-94A-008

(1) Consumables

TABLE 15002, Consumables
(Task 73-10-05-550-801)

Item Number	Material	Source (CML Code)
PWC03-002	Fluid, Calibrating MIL-PRF-7024 Type II	Local Purchase (A0001)
PWC05-054	Bag, polyethylene (Size as Required)	

NOTE: You can use equivalent substitutes for the consumables that show in this table.

Subtask 73-10-05-99E-008

(2) References

TABLE 15003, References
(Task 73-10-05-550-801)

Reference	Manual Part Number
PWC Consumable Materials List (CML)	3043340

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

STORAGE

Subtask 73-10-05-550-001

(3) Procedure

WARNING: DO NOT POINT THE AIR STREAM AT YOURSELF OR TOWARD ANOTHER PERSON.

WARNING: WEAR GOGGLES OR A FACE SHIELD TO PROTECT YOUR EYES.

(a) Use dry low-pressure filtered-shop-air at 30 psig (207 kPag) and blow excess calibration fluid (PWC03-002) from the exterior of the fuel nozzle adapter assembly.

NOTE: Leave a film of calibration fluid (PWC03-002) inside the fuel nozzle adapter. This fluid acts as a preservative inside the part when you send the part for repair or store on the shelf.

CAUTION: DO NOT PUT PRESERVATION OIL INTO THE PART. PRESERVATION OIL CAN CAUSE THE PART TO NOT OPERATE CORRECTLY.

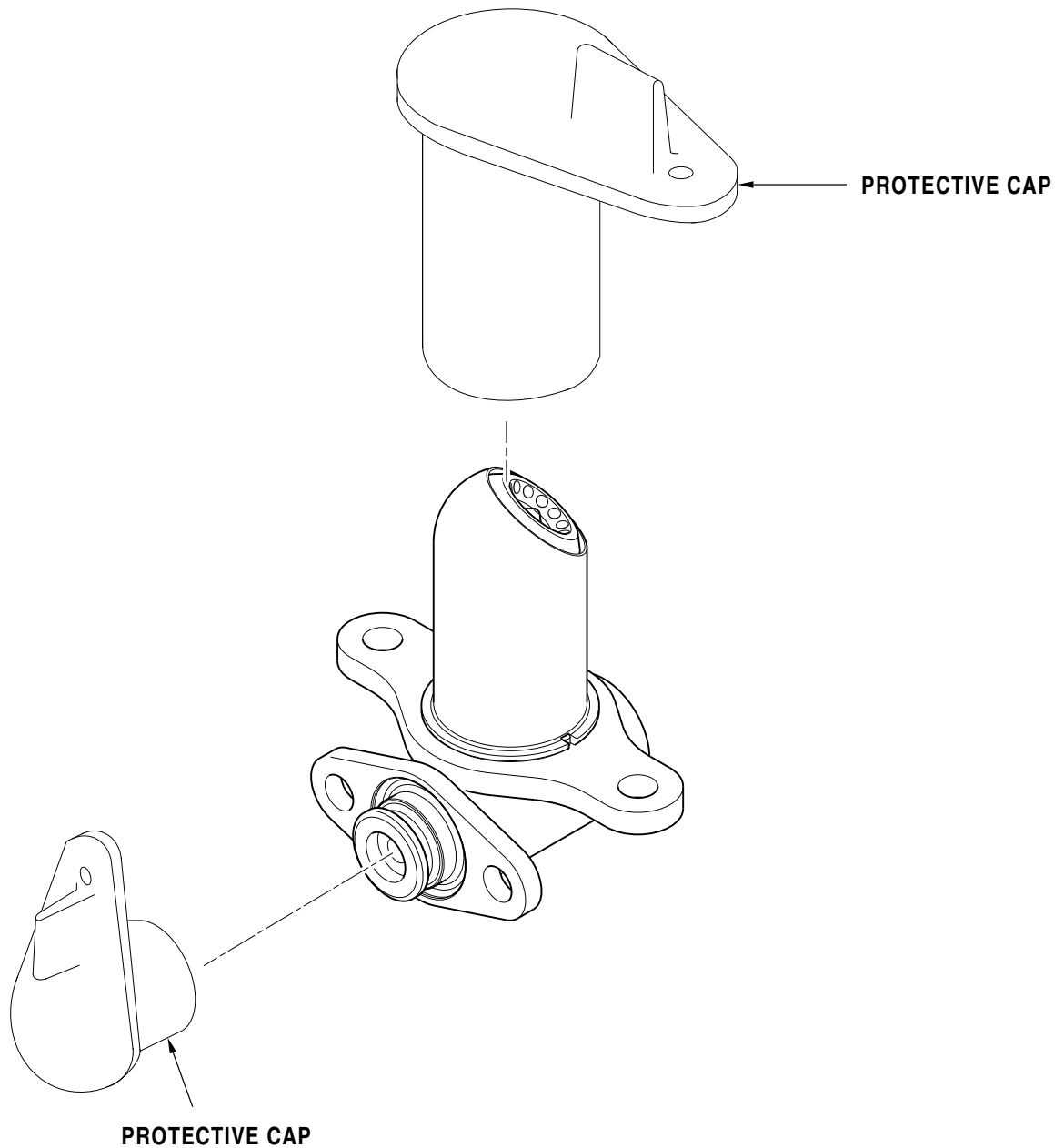
(b) Install protective caps onto the sheath and inlet openings (Refer to Figure 15001).

(c) Carefully put the part in a clean polyethylene bag (PWC05-054).

(d) Write the date and the type of preservation on the tag. Put the tag on the polyethylene bag (PWC05-054).

(e) Put the polyethylene bag (PWC05-054) into a shipping container.

STORAGE



C229551

Storage - Shipping Caps
Figure 15001
(Task 73-10-05-550-801)

73-10-05
STORAGE

Page 15005/15006
Mar 10/2022

EFF: ALL

PRATT & WHITNEY CANADA
COMPONENT MAINTENANCE MANUAL (PART NO. 3053386)

REWORK PROCEDURES

NOT APPLICABLE

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APPENDIX

NOT APPLICABLE

