Bill of Material Comparison Tools
User Manual

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Bill of Material Comparison Tools

Contents

Bill of Material Comparison Tools Features

UT,295 Bill of Material Comparison Utility

This utility allows you to compare two bills of material at different effectivity dates or revisions. This may be the same assembly part or two different assembly part numbers. The bills of material may exist in the same or different manufacturing or engineering data bases. The bills of material are listed side by side and highlights the components that have been added and deleted, or changes made in the quantity per assembly and yield.

* View differences and similarities of an assembly at different dates or revisions.
* Compare the differences and similarities between two different assembly part numbers.
* Compare bills of material in the same manufacturing data base, different manufacturing data bases, the same engineering data base, different engineering data bases, or between different manufacturing and engineering data bases.
* Single level and multi-level comparisons are available.
* Costed comparison option which calculates each component's cost, total assembly cost, and cost variance between the two assemblies
* Option to list only the differences between to bills of material
* Create listings sorted by component part number, item number or component description.

UT,296 Bill of Material to Work Order Comparison Utility

This utility compares the bill of material of a work order (work order allocations) to the standard bill of material. The utility produces an 'as built' vs. 'as designed' comparison, including the cost variances between the two.

* Highlight work order changes by comparing the work order against the standard bill of material.
* Pinpoint work order variances and differences without running verbose RE,31X reports.

RE,296 - Work Order to Bill of Material Comparison Report

Exception reports can now be generated on scheduled, kitted, or completed work orders vs. their current bill of material. This capability allows you to do the following;

* Quickly view configuration changes, over and under issues, and cost variances on a range of completed work orders on an exception basis.
* Validate that scheduled work orders added weeks ago are launched with the current bill of material.
* Start date, due date or completion date ranges are available as well as a number of different sort sequences.

New Features of Release 7.5

New Blow-thru option

Traditionally, the Bill of Material Comparison programs have provided comparisons where the source code X parts are included in the comparison. A new option has been added to the programs that allow the user to blow through the source code X parts so that the blow through components are not part of the comparison lists.

New Features of Release 7.0

Work Order to Bill of Material Comparison across data bases

The two work order to bill of material comparison commands, UT,296 and RE,296 have a new prompt which will allow the user to compare a work order to a bill of material in a different manufacturing or engineer data base.

New Data Base Comparision Definition file

A new feature has been added to all three bill of material comparison commands which will allow you to define what data bases to compare against at all times. If a file named U295DB.PUB is found, the system will not prompt the user for data bases to compare but use the values from this file. This feature also enables you to look at data bases in different HP Accounts. See the 'data base comparison definition' section in the manual for further details.

Visibility to Item Master Revision

If you are comparing two bills of material in UT,295 the current Item master revision field is now displayed in the headings of the listing. Previously, the revision was only displayed if you were comparing revisions of two different bills of material.

Summary option in RE,296

The RE,296 Work order to Bill of Material Comparison Report now has a 'summary' report option. The summary report option will list a single line per work order as to how many differences there are, as opposed to listing each different component.

New Features of Release 6.0

New Comparison Messages

The bill of material comparison command (UT,295) now has three new messages that may appear. The first, <QPA>, appears if the quantity per assembly of two identical components are the same. The message <CHG> will continue to appear if an item number or configuration flag is different on to two bills of material is different. The second two messages appear if you are comparing bills of material in different data bases. The message <SC > will appear if the source code of the same component is different. The last message, <REV>, will appear if the revision number of the same component in the item master record is different between the two data bases.

New Features of Release 5.0

Multiple Data Base Comparison Enhancement

The bill of material comparison command now supports comparing bills of material in different data bases. This may a comparison between different Manufacturing data bases, different Engineer data bases, or between different Manufacturing and Engineer data bases. After the output options, a new prompt will appear:

```
COMPARE BILLS IN DIFFERENT DATA BASES(N)?
```

If you respond yes, the following prompts will appear:

```
ENTER THE ORIGIN OF THE DATA BASES:
1.  MANUFACTURING DB TO MANUFACTURING DB
2.  ENGINEERING DB   TO ENGINEERING DB
3.  MANUFACTURING DB TO ENGINEERING DB
4.  ENGINEERING DB   TO MANUFACTURING DB
OPTION(1)?
```

You have the opportunity to select what type of comparison you wish to perform. You will then be prompted for the 'first' data base number and the 'second' data base number to derive the bills of material from.

List Differences Only in Command UT,296

The work order to bill of material comparison command (UT,296) has a new prompt which will allow you to list only the differences that appear between a work order and an bill of material.

Eliminate free stock parts in Command UT,296

The work order to bill of material comparison command (UT,296) has a new prompt which will allow you exclude free stock parts which appear on a work order or bill of material.

Data Base Comparision Definition file

If you have a need to always perform comparisions between two different data base numbers, you can create a 'data base comparison definition file', which will eliminate the need for you to enter the two different data base numbers each time that you perform a comparision.

The file name is U295DB and is located in the PUB group of the account you are logged into. To create the file, simply go into the EDITOR and create a two line file as shown below:

```
:EDITOR
/A
   1   MANDB.MDATABAS.ACCOUNT
   2   MANDB.MDATAB01.ACCOUNT
       //

/K U295DB.PUB
/E
```

Line 1 of the file defines the first (old) data base to open. Line 2 of the file defines the second (new) data base to open. You may also substitute an Engineer data base as well.

When you are using any of the 3 bill of material comparison commands, enter a "Y" to the prompt 'DO YOU WANT TO COMPARE IN DIFFERENT DATA BASES?. When you do the data base names will be obtained from the U295DB file and printed on your screen. If you respond "N" to the different data base prompt, you will be performing a comparison using the local data base as usual.

This feature will also allow you to compare bills of material that reside in different HP Accounts.

UT,295 Bill of Material Comparison Utility

This command is used to compare two different bills of material. A bill of material for one assembly part number may be compared against a bill of material for a different assembly part number or a bill of material for the same assembly part number may be compared at different effectivity dates or revisions.

Prompts

Displays output options.
OPTION (3)?

COMPARE BILLS IN DIFFERENT DATA BASES(N)?

If the two bills of material you will be comparing are not in different data base numbers, press return. If you would like to compare bills of material from two different data bases, enter 'Y'. If you enter 'Y' the following prompts appear:

ENTER THE ORIGIN OF THE DATA BASES:
1. MANUFACTURING DB TO MANUFACTURING DB
2. ENGINEERING DB TO ENGINEERING DB
3. MANUFACTURING DB TO ENGINEERING DB
4. ENGINEERING DB TO MANUFACTURING DB
OPTION(1)?

If you will be comparing bills of material between two manufacturing data bases, enter 1. If you will be comparing bills between two engineer data bases, enter 2. To compare a bill of material between manufacturing and engineer, enter 3 or 4.

FIRST DATA BASE NUMBER(xx) ?

SECOND DATA BASE NUMBER(xx) ?

Enter the data base number the first assembly resides in, and the data base number the second assembly resides in. The default is the data base number you are currently in.

ENTER COMPARISON OPTION:
1) BY COMPONENT PART NUMBER
2) BY ITEM NUMBER
3) BY COMPONENT DESCRIPTION
OPTION(1)?
The comparison option determines the sort sequence in which the components of each assembly part number are displayed. The item number sort sequence is helpful for companies that use item numbers, so that components that are added and deleted with the same item number are displayed together.

Components with similar descriptions that are exchanged (ie. HEXSCREW 1/2 with a HEXSCREW 5/8) the component description sort sequence will provide a more ledgible display.

ENTER LISTING OPTION:
1) LIST ALL COMPONENTS
2) LIST DIFFERENCES ONLY
3) COSTED LISTING OF ALL COMPONENTS
4) COSTED LISTING OF DIFFERENCES ONLY
5) LIST ALL COMPONENTS - ALL LEVELS
6) LIST DIFFERENCES ONLY - ALL LEVELS
7) COSTED LIST ALL COMPONENTS - ALL LEVELS
8) COSTED LIST DIFFERENCES ONLY - ALL LEVELS
9) SUMMARY BILL COMPARISON - ALL COMPONENTS
10) SUMMARY BILL COMPARISON - DIFFERENCES ONLY
OPTION(1)?
The listing option allows you to select whether you want to view all components of the bills of material you are comparing, or simply any differences found. If you are creating a listing in 132 column mode, you may optionally use a costed listing. The extended unit cost (quantity per assembly times standard unit cost) is displayed for each component. At the conclusion of printing the bill of material, the total cost of each version of the bill is totaled as well as any cost difference between the two.

Selecting Options 5 thru 8 will process all components on the assembly part number(s) entered and all of the common subassemblies on lower levels.

Options 9 and 10 will gather all components on all levels of the assembly part number(s) entered . Any common components will be listed once and the quantity per assembly's will be summarized. The summarized lists of the two bills of material will then be compared.

FIRST ASSEMBLY PART NUMBER?
Enter the part number of the first assembly you wish to compare. If you are comparing an assembly at different effectivity dates, this is assumed to be the 'old' version of the assembly.

If an ECO is on file for this part, you are prompted:
REVISION (^ TO EXIT)?
Enter a valid revision for this part

If an ECO is not on file, you are prompted for the effectivity date of the first assembly part number.
DATE?

SECOND ASSEMBLY PART NUMBER?
Enter the part number of the second assembly you wish to

compare with the first. Pressing C/R defaults to the first assembly part number.

If an ECO is on file for the second assembly part number, you are prompted:
REVISION (^ TO EXIT)?
Enter a valid revision for this part

If an ECO is not on file for the second assembly part number, you are prompted for an effectivity date.
DATE?

Each of the components from both assembly part numbers are displayed side by side.

If you are doing a single level comparison and common manufactured components are found between the two assemblies, you are prompted:
THERE ARE x COMMON MANUFACTURED COMPONENTS,
EXPLODE NEXT LEVEL(N)?
Enter a 'Y' to produce a bill of material comparison for the next level of common manufactured components.

If you compare lower level components, you will continue to be prompted to explode the next level so long as common manufactured components are found.

Files Accessed

ASSEMB Assembly master file
IM Item master file
ECOREC Engineering change order file
PSF Product structure file

Screen Format

Top of each page
Level - displays what level of comparison is being displayed
(a summary comparison will list '99' as the level)
(the first display is level zero)
First assembly part number
Effectivity date of first assembly part number
Second assembly part number
Effectivity date of second assembly part number
Description of first assembly part number (DESC - IM)
Revision (if applicable) of first assembly part number
Description of second assembly part number (DESC - IM)
Revision (if applicable) of second assembly part number

For each component displayed

Component part number of first assembly (COMNO - PSF)
Revision of component (132 mode only) (REV - IM)
Item number of component (ITEMNO - PSF)
Source Code of component (SCODE - IM)
Quantity per assembly (QPA - PSF)
Unit of Measure of component (132 mode only) (UOM - IM)
Days offset (132 mode only) (BOMDAT - PSF)
Sequence number (132 mode only) (BOMSEQ - PSF)
Extended cost (132 mode costed listing)
Effectivity date of component (BOMEFF - PSF)

Difference - This field indicates whether a component has been added, changed, or deleted between the two lists of components.

ADD> the component appears in the second assembly part number but not the first, therefore this component was added.
<CHG> a change in either the components quantity per assembly, yield, or consumable flag was found.
<DEL the component appears in the first assembly part number but not the second, therefore this component was deleted.

Component part number of second assembly (COMNO - PSF)
Revision of component (132 mode only) (REV - IM)
Item number of component (ITEMNO - PSF)
Source Code of component (SCODE - IM)
Quantity per assembly (QPA - PSF)
Unit of Measure of component (132 mode only) (UOM - IM)
Days offset (132 mode only) (BOMDAT - PSF)
Sequence number (132 mode only) (BOMSEQ - PSF)
Extended cost (132 mode costed option)
Effectivity date of component (BOMEFF - PSF)

Second line for each component
Description of the component from the first assembly
Yield of the component (BOMYLD - PSF)
Obsolete date of the component (ODATE - PSF)

Description of the component from the second assembly
Yield of the component (BOMYLD - PSF)
Obsolete date of the component (ODATE - PSF)

UT,296 Bill of Material to Work Order Comparison Utility

This command is used to compare the component list on a work order to that of a bill of material. The purpose is to easily highlight what components have been added, changed or deleted on the work order. Based on the changes to the work order and any issues or returns, the unit cost of the bill of material is calculated and compared to the unit cost on the work order to provide an 'as designed' vs. 'as built' comparison.

Prompts

Displays output options.
OPTION (3)?

COMPARE WORK ORDER TO A BILL IN A DIFFERENT DATABASE(N)? Y *
If you would like to compare the work orders of one data base to the bills of material in another Manufacturing or Engineer data base enter 'Y'. If you enter 'Y' the following appears:

```
ENTER THE ORIGIN OF THE DATA BASES:
--- WORK ORDER ----  -- BILL OF MATERIAL --
1.  MANUFACTURING DB TO MANUFACTURING DB
2.  ENGINEERING DB   TO ENGINEERING DB
3.  MANUFACTURING DB TO ENGINEERING DB
4.  ENGINEERING DB   TO MANUFACTURING DB
OPTION (1)? 1

WORK ORDER'S MANUFACTURING DATA BASE NUMBER ( 0)?

BILL OF MATERIAL'S MANUFACTURING DATA BASE NUMBER ( 0)?
Enter the work order and bill of material data base numbers
read when performing the comparisions.
```

WORK ORDER NUMBER?
Enter the work order number you wish to compare to a bill of material.

ASSEMBLY PART NUMBER (xxxxxxxxxxxxxxxxxx) ?
Enter the assembly part number you wish to compare to the work order. The default is the assembly part number from the work order that was entered.

If an ECO is on file for the assembly part number, you are prompted:
REVISION (^ TO EXIT)?
Enter a valid revision for this part

If an ECO is not on file for the assembly part number, you are prompted for an effectivity date.
DATE?

LIST DIFFERENCES ONLY (N)?

If you would like to only view the differences between the work order and the bill of material respond 'Y'.

INCLUDE FREE STOCK COMPONENTS IN COMPARISON (N)?

If you would like to see the free stock parts listed from your bill of material and work order respond 'Y'.

The components from the work order and the bill of material are displayed side by side.

Returns to WORK ORDER NUMBER?

Files Accessed

ASSEMB Assembly master file
IM Item master file
ECOREC Engineering change order file
PSF Product structure file
OWOF Work order file
WOSHT Work order allocation file

Screen Format

Top of each page
Assembly part number
Effectivity date of the assembly part number
Work order number
Assembly part number of the work order
Description of assembly part number
Revision (if applicable) of first assembly part number
Description of the work order's assembly part number

For each component displayed
Component part number of assembly (COMNO - PSF)
Revision of component (132 mode only) (REV - IM)
Item number of component (132 mode only) (ITEMNO - PSF)
Source Code of component (SCODE - IM)
Quantity per assembly (QPA - PSF)
Unit of Measure of component (132 mode only) (UOM - IM)
Days offset (132 mode only) (BOMDAT - PSF)
Sequence number (132 mode only) (BOMSEQ - PSF)
Effectivity date of component (BOMEFF - PSF)

Difference - This field indicates whether a component has been added, changed, or deleted between the assembly part number and the components on the work order.

ADD> the component appears on the work order, but not on the bill of material, therefore this component was added to the work order.
<CHG> a change in either the components quantity per assembly, or consumable flag was found.
<DEL the component appears on the bill of material, but not the work order, therefore this component was deleted from the work order.

Component part number from the work order (SHTPN - WOSHT)
Source Code of component (SCODE - IM)

Quantity per assembly - in release 8 this is obtained from the quantity per assembly field (SHTQPA) in the work order allocation file. Prior to release 8 this a calculation based on quantity issued + quantity owed divided by the work order quantity.
((SHTISS+SHTQTY) / WOQ)

Unit of Measure of component (132 mode only) (UOM - IM)
Days offset (132 mode only) (SHTOFSET - WOSHT)
Sequence number (132 mode only) (SHTSEQ - WOSHT)
Work order's component unit cost - unit cost of the component times the calculated quantity per assembly.
Bill of material component unit cost - unit cost of the component time the quantity per assembly on the bill of material

second line for each component
Description of the component from the bill of material
Yield of the component (BOMYLD - PSF)
Obsolete date of the component (ODATE - PSF)
Description of the component from the work order

RE,296 Work Order to Bill of Material Comparison Report

This command is used to compare the components listed on open or closed work orders to components listed on the current bill of material. The purpose of the report is is to list, on an exception basis, any components that have been added, changed, or deleted on a series of work orders. This report may also be used to validate that any work orders that were added weeks ago, are being launched with the current bill of material instead of a past revision. Differences in component part numbers, quantities per assembly, and consumable flag, are all listed.

Prompts

```
Displays output options.
OPTION (0)?
```

```
COMPARE WORK ORDER TO A BILL IN A DIFFERENT DATABASE(N)?
```

If you would like to compare the work orders of one data base to the bills of material in another Manufacturing or Engineer data base enter 'Y'. If you enter 'Y' the following appears:

```
 ENTER THE ORIGIN OF THE DATA BASES:
 --- WORK ORDER ----  -- BILL OF MATERIAL --
 1.  MANUFACTURING DB TO MANUFACTURING DB
 2.  ENGINEERING DB   TO ENGINEERING DB
 3.  MANUFACTURING DB TO ENGINEERING DB
 4.  ENGINEERING DB   TO MANUFACTURING DB
 OPTION (1)? 1

 WORK ORDER'S MANUFACTURING DATA BASE NUMBER ( 0)?

 BILL OF MATERIAL'S MANUFACTURING DATA BASE NUMBER ( 0)?
```

Enter the work order and bill of material data base numbers read when performing the comparisions.

```
WORK ORDER OPTION?
1.  SCHEDULED ONLY
2.  SCHEDULED AND KITTED ONLY
3.  CLOSED ONLY
4.  CLOSED FOR ACCOUNTING ONLY
OPTION(1)?
```

Choose the work order status you wish to perform a bill material comparison on. Enter a 1 for scheduled orders, a 2 for open or in progress work orders, a 3 for all closed work orders, or a 4 for work orders closed for accounting.

```
DATE SELECTION OPTION
1.  BY WORK ORDER START DATE
2.  BY WORK ORDER DUE DATE
3.  BY WORK ORDER DATE CLOSED
```

```
OPTION(1)?
Enter the work order date you will use when entering the
from and to date range in the prompts below:

BEGINNING XXXXXXXX DATE?     (XXXXXXXX = START, DUE OR CLOSED)
ENDING XXXXXXXX DATE?
Enter the beginning and ending date range to select
work orders by:

SORT OPTION
1.  BY WORK ORDER NUMBER
2.  BY DATE
3.  BY WORK ORDER ACCOUNT NUMBER
OPTION(1)?
Enter the sort sequence for the report

REPORT OPTION:
1.  DETAIL REPORT
2.  SUMMARY REPORT
OPTION(1)?
If you select option number 1, each different component found
between the work order and the bill of material will be listed.
If you select option number 2, a single line will be printed with
a total of the number of differences found between the work orders
and the bills of material.


The 'GATHERING DATA..' message appears, followed by the
number of work orders selected that a bill of material
comparison will be performed upon.

When completed, it returns to WORK ORDER OPTION?.
```

Files Accessed

```
ASSEMB Assembly master file
IM Item master file
PSF Product structure file
OWOF Work order file
WOSHT Work order allocation file
```

Screen Format

```
Top of each page
From and To date range entered

For each work order
First line:
Work order number (WOWO - OWOF)
Work order part number  (WOINO - OWOF)
Work order account number  (WOCOA - OWOF)
```

Second line:
Work order date - date selected
(Will be start date (WODR - OWOF)
  due date (WOPCD - OWOF) or
  completed date (WODLO - OWOF)
Work order part number description (DESC-IM)

For each component displayed
Component part number of assembly (COMNO - PSF)
Revision of component (REV - IM)
Item number of component (ITEMNO - PSF)
Source Code of component (SCODE - IM)
Quantity per assembly (QPA - PSF)
Unit of Measure of component (UOM - IM)
Days offset (BOMDAT - PSF)
Sequence number (BOMSEQ - PSF)
Effectivity date of component (BOMEFF - PSF)

Difference - This field indicates whether a component has been added, changed, or deleted between the assembly part number and the components on the work order.

  ADD> the component appears on the work order, but not on the bill of material, therefore this component was added to the work order.
 <CHG> a change in either the components quantity per assembly, or consumable flag was found.
 <DEL the component appears on the bill of material, but not the work order, therefore this component was deleted from the work order.

Component part number from the work order (SHTPN - WOSHT)
Source Code of component (SCODE - IM)

Quantity per assembly - in release 8 this is obtained from the quantity per assembly field (SHTQPA) in the work order allocation file. Prior to release 8 this a calculation based on quantity issued + quantity owed divided by the work order quantity.
((SHTISS+SHTQTY) / WOQ)

Unit of Measure of component (UOM - IM)
Days offset (SHTOFSET - WOSHT)
Sequence number (SHTSEQ - WOSHT)
Work order's component unit cost - unit cost of the component times the calculated quantity per assembly.
Component unit cost difference - unit cost of the component times the quantity per assembly on the work order, minus the unit cost of the component times the quantity per assembly on the bill of material

second line for each component
Description of the component from the bill of material
Yield of the component (BOMYLD - PSF)
Obsolete date of the component (ODATE - PSF)
Description of the component from the work order

```
OMMAND (MG,60)? U,295    *** BOM Comparison - 80 column view ***

NTER COMPARISON OPTION:
1. BY COMPONENT PART NUMBER
2. BY ITEM NUMBER
3. BY COMPONENT DESCRIPTION
PTION(1)? 1

NTER LISTING OPTION:
1.  LIST ALL COMPONENTS
2.  LIST DIFFERENCES ONLY
3.  COSTED LISTING OF ALL COMPONENTS
4.  COSTED LISTING OF DIFFERENCES ONLY
5.  LIST ALL COMPONENTS - ALL LEVELS
6.  LIST DIFFERENCES ONLY - ALL LEVELS
7.  COSTED LIST ALL COMPONENTS - ALL LEVELS
8.  COSTED LIST DIFFERENCES ONLY - ALL LEVELS
9.  SUMMARY BILL COMPARISON - ALL LEVELS
0.  SUMMARY BILL COMPARISON - DIFFERENCES ONLY
```

```
PTION(1)? 1

IRST ASSEMBLY PART NUMBER? 851034            *

 ASTROTURN LOUVER BROWN            (EA)    SOURCE: M     REV:

ATE? 1/1/92  *

ECOND ASSEMBLY PART NUMBER? 851034            *

ATE? 6/1/92  *

AT, SEP 12, 1992,  3:29 PM      BOM COMPARISON                        PAGE:  1
EVEL: 0                         ==============
51034           AS OF:01/01/92         851034            AS OF:06/01/92
STROTURN LOUVER BROWN        REV:       ASTROTURN LOUVER BROWN        REV:
                                       D
PART NUMBER/       ITEM S   QTY PER    I   PART NUMBER/       ITEM S   QTY PER
DESCRIPTION         NO  C   ASSMBLY    F   DESCRIPTION         NO  C   ASSMBLY
------------------ ---- -  ---------  -   ------------------ ---- -  ---------
11942                 0 B      1.000<CHG>*11942                 0 B      2.000
TURBINE   PAD                             TURBINE   PAD
11944                 0 B      1.000 OK  *11944                 0 B      1.000
BROWN CARTON                              BROWN CARTON
15337                 0 P      1.000 OK  *15337                 0 P      1.000
ACORN NUT 1/2-13 ZINC-PLTD                ACORN NUT 1/2-13 ZINC-PLTD
                                     ADD>*15340                 0 P      1.000
                                          SUPPORTING RING- GALVZD
15342                 0 P      1.000<DEL
3/4 HEXSCREW
15412                 0 M      1.000 OK  *15412                 0 M      1.000
SHEET-METAL SCREW PKG                     SHEET-METAL SCREW PKG
15431                 0 P      1.000 OK  *15431                 0 P      1.000
SHAFT ASSEMBLY                            SHAFT ASSEMBLY
854790                0 M      1.000 OK  *854790                0 M      1.000
COLLAR TO FINS BRN                        COLLAR TO FINS BRN
854808                0 M      1.000 OK  *854808                0 M      1.000
RIVET COLLAR 4 1/2 BRN                    RIVET COLLAR 4 1/2 BRN

HERE ARE  3 COMMON MANUFACTURED COMPONENTS, EXPLODE NEXT LEVEL (N)? N *
```

LEVEL: 0

851034 AS OF: 01/01/92 ASTROTURN LOUVER BROWN REV:										851034 AS OF: 06/01/92 ASTROTURN LOUVER BROWN REV:								
PART NUMBER/ DESCRIPTION	R V	ITEM NO	QTY PER ASSMB/YLD	U M	S C	OFF SET	SEQ NO	EFF/OBS DATE	DI F	PART NUMBER/ DESCRIPTION	R V	ITEM NO	QTY PER ASSMB/YLD	U M	S C	OFF SET	SEQ NO	EFF/OBS DATE
*11942		0	1.000	EA	B	0	900	00/00/00	<CHG>	*11942		0	2.000	EA	B	0	10	01/16/92
TURBINE PAD			1.000					01/15/92		TURBINE PAD			1.000					99/99/99
*11944		0	1.000	EA	B	0	900	00/00/00	OK	*11944		0	1.000	EA	B	0	900	00/00/00
BROWN CARTON			1.000					99/99/99		BROWN CARTON			1.000					99/99/99
*15337		0	1.000	EA	P	0	900	00/00/00	OK	*15337		0	1.000	EA	P	0	900	00/00/00
ACORN NUT 1/2-13 ZINC-PLTD			1.000					99/99/99		ACORN NUT 1/2-13 ZINC-PLTD			1.000					99/99/99
									ADD>	*15340		0	1.000	EA	P	0	10	01/16/92
										SUPPORTING RING- GALVZD			1.000					99/99/99
*15342		0	1.000	EA	P	0	900	00/00/00	<DEL									
3/4 HEXSCREW			1.000					01/15/92										
*15345		0	1.000	EA	P	0	900	00/00/00	OK	*15345		0	1.000	EA	P	0	900	00/00/00
1/4 SPRING LOCKWASHER ZINC			1.000					99/99/99		1/4 SPRING LOCKWASHER ZINC			1.000					99/99/99
*15409		0	1.000	EA	P	0	900	00/00/00	OK	*15409		0	1.000	EA	P	0	900	00/00/00
IT WASHER 1/2 ZPD			1.000					99/99/99		IT WASHER 1/2 ZPD			1.000					99/99/99
*15412		0	1.000	EA	M	0	900	00/00/00	OK	*15412		0	1.000	EA	M	0	900	00/00/00
SHEET-METAL SCREW PKG			1.000					99/99/99		SHEET-METAL SCREW PKG			1.000					99/99/99
*15431		0	1.000	EA	P	0	900	00/00/00	OK	*15431		0	1.000	EA	P	0	900	00/00/00
SHAFT ASSEMBLY			1.000					99/99/99		SHAFT ASSEMBLY			1.000					99/99/99
*854790		0	1.000	EA	M	0	900	00/00/00	OK	*854790		0	1.000	EA	M	0	900	00/00/00
COLLAR TO FINS BRN			1.000					99/99/99		COLLAR TO FINS BRN			1.000					99/99/99
*854808		0	1.000	EA	M	0	900	00/00/00	OK	*854808		0	1.000	EA	M	0	900	00/00/00
RIVET COLLAR 4 1/2 BRN			1.000					99/99/99		RIVET COLLAR 4 1/2 BRN			1.000					99/99/99
*855393		0	1.000	EA	M	0	900	00/00/00	OK	*855393		0	1.000	EA	M	0	900	00/00/00
ALMN 025 ELBOW WIP-BROWN			1.000					99/99/99		ALMN 025 ELBOW WIP-BROWN			1.000					99/99/99

```
OMMAND (MG,60)? U,296

NTER DESIRED OUTPUT OPTION:
 0. LINE PRINTER
 1. TERMINAL, 132 COLUMNS
 2. ENTER LOGICAL DEVICE/DISC FILE, 132 COLUMNS
 3. TERMINAL
PTION (3)? 1

ORK ORDER NUMBER? 4321     *

SSEMBLY PART NUMBER (851034           )?                  *
ATE?         *
```

Example of Work order to bill of material comparison in 132 column view

```
AT, JULY 1, 1992,  3:39 PM                BILL OF MATERIAL TO WORK ORDER COMPARISON                                    PAGE:  1
                                          ========================================
851034            AS OF: 09/12/92                                  WORK ORDER: 4321         PART NO: 851034
STROTURN LOUVER BROWN         REV:                                 ASTROTURN LOUVER BROWN
```

PART NUMBER/ DESCRIPTION	R V	ITEM NO	QTY PER ASSMB/YLD	U M	S C	OFF SET	SEQ NO	EFF/OBS DATE	D I F	PART NUMBER/ DESCRIPTION	QTY PER ASSEMBLY	U M	S C	OFF SET	SEQ NO	WO COMP EXT COST	BOM COMP EXT COST
11942 TURBINE PAD		0	2.000 1.000	EA	B	0	10	01/16/92 99/99/99	OK	*11942 TURBINE PAD	2.000	EA	B	0	10	1.094	1.094
11944 BROWN CARTON		0	1.000 1.000	EA	B	0	900	00/00/00 99/99/99	OK	*11944 BROWN CARTON	1.000	EA	B	0	900	1.568	1.568
15337 ACORN NUT 1/2-13 ZINC-PLTD		0	1.000 1.000	EA	P	0	900	00/00/00 99/99/99	<CHG>	*15337 ACORN NUT 1/2-13 ZINC-PLTD	1.100	EA	P	0	900	.113	.103
15340 SUPPORTING RING- GALVZD		0	1.000 1.000	EA	P	0	10	01/16/92 99/99/99	OK	*15340 SUPPORTING RING- GALVZD	1.000	EA	P	0	10	.109	.109
15345 1/4 SPRING LOCKWASHER ZINC		0	1.000 1.000	EA	P	0	900	00/00/00 99/99/99	<CHG>	*15345 1/4 SPRING LOCKWASHER ZINC	1.120	EA	P	0	900	.003	.003
15412 SHEET-METAL SCREW PKG		0	1.000 1.000	EA	M	0	900	00/00/00 99/99/99	OK	*15412 SHEET-METAL SCREW PKG	1.000	EA	M	0	900	.108	.108
15431 SHAFT ASSEMBLY		0	1.000 1.000	EA	P	0	900	00/00/00 99/99/99	OK	*15431 SHAFT ASSEMBLY	1.000	EA	P	0	900	2.414	2.414
18232 TURBINE BROCHURE		0	1.000 1.000	EA	P	0	900	00/00/00 99/99/99	<DEL								.000
									ADD>	18296 0175X18.930 GRY EMB CNSD	1.000	LB	B	0	900	1.932	
854790 COLLAR TO FINS BRN		0	1.000 1.000	EA	M	0	900	00/00/00 99/99/99	OK	*854790 COLLAR TO FINS BRN	1.000	EA	M	0	900	11.862	11.862
854808 RIVET COLLAR 4 1/2 BRN		0	1.000 1.000	EA	M	0	900	00/00/00 99/99/99	OK	*854808 RIVET COLLAR 4 1/2 BRN	1.000	EA	M	0	900	3.186	3.186
855393 ALMN 025 ELBOW WIP-BROWN		0	1.000 1.000	EA	M	0	900	00/00/00 99/99/99	OK	*855393 ALMN 025 ELBOW WIP-BROWN	1.000	EA	M	0	900	6.238	6.238
																28.658	26.716

```
ORK ORDER NUMBER? E       *
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COMMAND (MG,60)? U,296                        *

Bill of Material to Work Order Comparison

ENTER DESIRED OUTPUT OPTION:
  0. LINE PRINTER
  1. TERMINAL, 132 COLUMNS
  2. ENTER LOGICAL DEVICE/DISC FILE, 132 COLUMNS
  3. TERMINAL
OPTION (3)? 3

WORK ORDER NUMBER? 4321      *

ASSEMBLY PART NUMBER (851034            )?                   *

DATE?         *

MON, JULY 1, 1992, 10:18 AM   BOM TO WO COMPARISON                      PAGE:  1
                              ====================
851034            AS OF:07/01/92      WO NO:4321       PART:851034
ASTROTURN LOUVER BROWN        RV:     ASTROTURN LOUVER BROWN
                                   D
 PART NUMBER/       S   QTY PER   I   PART NUMBER/       S   QTY PER   WO/BOM
 DESCRIPTION        C   ASSMBLY   F   DESCRIPTION        C   ASSMBLY   EXT COST
 ------------------ -  ---------  -   ------------------ -  ---------  --------
*11942              B      2.000 OK  *11942              B      2.000     1.094
 TURBINE   PAD                        TURBINE   PAD                        1.094
*11944              B      1.000 OK  *11944              B      1.000     1.568
 BROWN CARTON                         BROWN CARTON                         1.568
*15337              P      1.000<CHG>*15337              P      1.100      .113
 ACORN NUT 1/2-13 ZINC-PLTD           ACORN NUT 1/2-13 ZINC-PLTD           .103
*15340              P      1.000 OK  *15340              P      1.000      .109
 SUPPORTING RING- GALVZD              SUPPORTING RING- GALVZD              .109
*15345              P      1.000<CHG>*15345              P      1.120      .003
 1/4 SPRING LOCKWASHER ZINC           1/4 SPRING LOCKWASHER ZINC           .003
*15409              P      1.000 OK  *15409              P      1.000      .030
 IT WASHER 1/2 ZPD                    IT WASHER 1/2 ZPD                    .030
*15412              M      1.000 OK  *15412              M      1.000      .108
 SHEET-METAL SCREW PKG                SHEET-METAL SCREW PKG                .108
*15431              P      1.000 OK  *15431              P      1.000     2.414
 SHAFT ASSEMBLY                       SHAFT ASSEMBLY                       2.414
*18232              P      1.000<DEL
 TURBINE BROCHURE                                                         .000
                                ADD> 18296              B      1.000
                                     0175X18.930 GRY EMB CNSD             1.932
*854790             M      1.000 OK  *854790             M      1.000    11.862
 COLLAR TO FINS BRN                   COLLAR TO FINS BRN                  11.862
*854808             M      1.000 OK  *854808             M      1.000     3.186
 RIVET COLLAR 4 1/2 BRN               RIVET COLLAR 4 1/2 BRN               3.186
CONTINUE (Y)? N *


WORK ORDER NUMBER? E         *
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WORK ORDER TO BILL OF MATERIAL COMPARISON REPORT

SCHED/KITTED ORDERS DUE 03/30/92 THRU 04/30/92

WO NO/ DATE	BOM PART NUMBER/ DESCRIPTION	R V	ITEM NO	QTY PER ASSMB/YLD	U M	S C	OFF SET	SEQ NO	EFF/OBS DATE	D I F	WO COMPONENT PART/ DESCRIPTION	QTY PER ASSEMBLY	U M	S C	OFF SET	SEQ NO	COST DIFF
2181	851034	CMIP															
03/30/92	ASTROTURN LOUVER BROWN																
	*11942		0	2.000	EA	B	0	10	01/16/92	<CHG>	*11942	1.000	EA	B	0	900	-.547
	TURBINE PAD			1.000					99/99/99		TURBINE PAD						
	*15340		0	1.000	EA	P	0	10	01/16/92	<DEL							
	SUPPORTING RING- GALVZD			1.000					99/99/99								.109
										ADD>	*15342	1.000	EA	P	0	900	.013
											3/4 HEXSCREW						
																	-.643
				QUANTITY ORDERED:	3000.00				QUANTITY COMPLETED:		2633.00	EXTENDED COST DIFFERENCE:					-1693.019
2182	854784	CMIP															
03/30/92	CROWN TO FINS BRN																
											NO WORK ORDER TO BOM DIFFERENCES FOUND						
2223	851010-12	CMIP															
04/01/92	1010 LVR 8 X 16																
											NO WORK ORDER TO BOM DIFFERENCES FOUND						
2217	851009-12	CMIP															
04/01/92	1009 LVR 8 X 12																
											NO WORK ORDER TO BOM DIFFERENCES FOUND						
2531	305155	CIP															
04/30/92	PX PF 080 1 SIDE 49.00X 48.00																
	*16166		0	8.054	LB	B	0	10	00/00/00	<CHG>	*16166	7.812	LB	B	0	10	-.202
	CP-81 CLR ACR REPROCESSED			.970					99/99/99		CP-81 CLR ACR REPROCESSED						
	*18362		0	.114	LB	B	0	10	02/07/92	<CHG>	*18362	.114	LB	B	0	10	.000
	POLYFILM 49 1/8 2.75 ML BLUE			1.002					99/99/99		POLYFILM 49 1/8 2.75 ML BLUE						
																	-.202
				QUANTITY ORDERED:	697.00				QUANTITY COMPLETED:		697.00	EXTENDED COST DIFFERENCE:					-140.451
2532	305095	CIP															
04/30/92	PX PF 100 49.00X 97.00																
	*16166		0	19.539	LB	B	0	10	00/00/00	<CHG>	*16166	18.953	LB	B	0	10	-.489
	CP-81 CLR ACR REPROCESSED			.970					99/99/99		CP-81 CLR ACR REPROCESSED						
	*18362		0	.858	LB	B	0	10	02/07/92	<CHG>	*18362	.858	LB	B	0	10	.000
	POLYFILM 49 1/8 2.75 ML BLUE			1.002					99/99/99		POLYFILM 49 1/8 2.75 ML BLUE						
																	-.489
				QUANTITY ORDERED:	497.00				QUANTITY COMPLETED:		497.00	EXTENDED COST DIFFERENCE:					-242.962