Hyster Hypass Parts & Service System

For Technical Support Call

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Table of Contents

Introduction

This Operator Manual is designed to step you through the tasks you need to perform using the Hyster Hypass system.

Title Bar

The blue bar across the top of the screen is called the Title Bar. This bar will always be present, and has three buttons on the right side:

```
N-Compass                                    _ □ ☒
```

Minimize the window ——————   —————— Exit the program

```
_ □ ☒
```

—————— Maximize the window
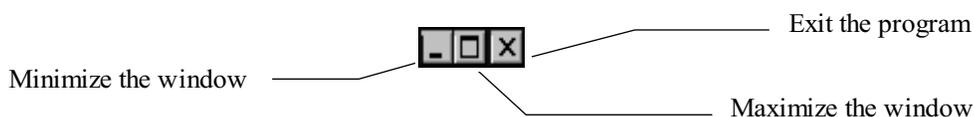
Button Bar

The Button Bar is the main Functionality Bar used throughout the system:

```
N-Compass                                    _ □ ☒
```

Button	**Description**
⬆	**Go to the Main Screen** - This button will return you to the main screen at any time.
🖫	**Navigator** - (or **F2**) This button will launch the **Navigator** button at anytime after you have selected a model or serial number. See the Navigator section in this manual for more information about using the navigator.
◄ ►	**Go Back/Go Forward** - These buttons will take you to the last viewed screen. For example, if you are viewing parts page number 1 and then go to page 2, the left blue arrow will take you back to page 1. Then, the blue right arrow will take you back to page 2.
🔍	**Search** - (or **F3**) This button will allow you to conduct a Search in the Parts Manual or the Service Manual from anywhere in the system. See the Search section of this manual for further information on searching.

Print - This button will print the current topic. You can print Parts Pages, Electrical Drawings, Hydraulic Drawings, Parts Orders, MSDS Sheets or Service Procedures.

Parts Order Screen - This button will allow you to open old orders or review an order before printing, transmitting or faxing.

MSDS Sheets - This button will allow you to view all MSDS sheets in alphabetical order. See the MSDS Sheets Section of this document for further information

Notes - (or **F6**) This button will allow you to "stick" a "post it" note to the current topic. See the Notes Section of this document for further information.

Link - This button will allow you to establish links between Parts and Service topics.

Help - This gives you information about the area you are in now. This area is accessible from anywhere in the system.

Exit - This will exit the program at anytime.

Grams - This allows you to select from the available Parts and Service grams.

The N-Compass™ system uses tool tips that will help you remember what each button does. Move your cursor over the button and the strip across the bottom of the screen will show the functionality of that button. For example, if you hold the cursor over the **MSDS Sheets** button:

MSDS Sheet icon.

Display MSDS Sheets

Tool Tips appear here.

N-Compass^{TM} provides thumbnail images across the bottom of the main screen representing each model series. In addition, if you move your mouse pointer over one of the thumbnails, the lower left hand corner will show the name of that series.

Setup

The N-Compass^{TM} Parts & Service system is designed to run on a standard 486DX or above PC with a CD-ROM Drive, 110 Meg of free Hard Disk Space, and 24 Meg of RAM running Windows 95. Due to the large number of graphics, it is recommended that the PC have a fast video card, local bus video is recommended. This release of N-Compass^{TM} is resolution independent. If your PC runs in 800x600 or 1024x768 256 color, you can run N-Compass^{TM} in those resolutions. The startup screen will still appear in 640x480 but the parts pages and service pages will take advantage of the extra viewing area.

Installing the N-Compass^{TM} Parts and Service System

1. Make sure that the Hypass Service CD is in the CD-rom drive. If the CD-rom drive is external, make sure it is turned on.

2. In **Windows 95**, click **Start**.

3. In the **Run** box, type "D:\setup" (where "D" is the drive assigned to the CD).

4. Click **OK**.

5. Follow the installation prompts.
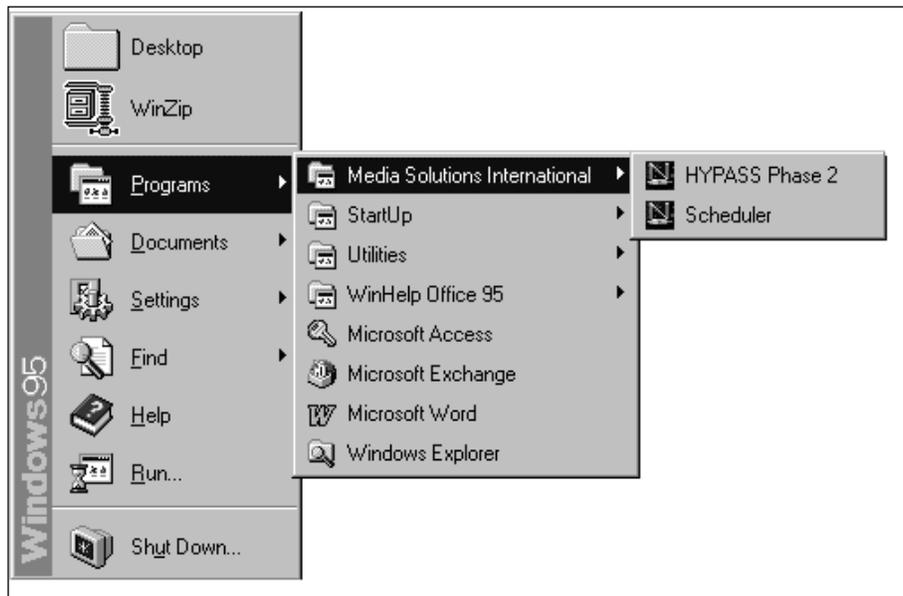
After a successful setup, the **Hyster Hypass** icon will be visible in a program group called "*Media Solutions International*", as well as on the Desktop, if you chose that option during Setup. Double click the **Hyster Hypass** icon to launch the Parts and Service system.

General Interface

To load the Hyster Hypass system, double click the **Hyster Hypass** icon in the Media Solutions International Program Group, or on your Desktop.

The main screen looks like:
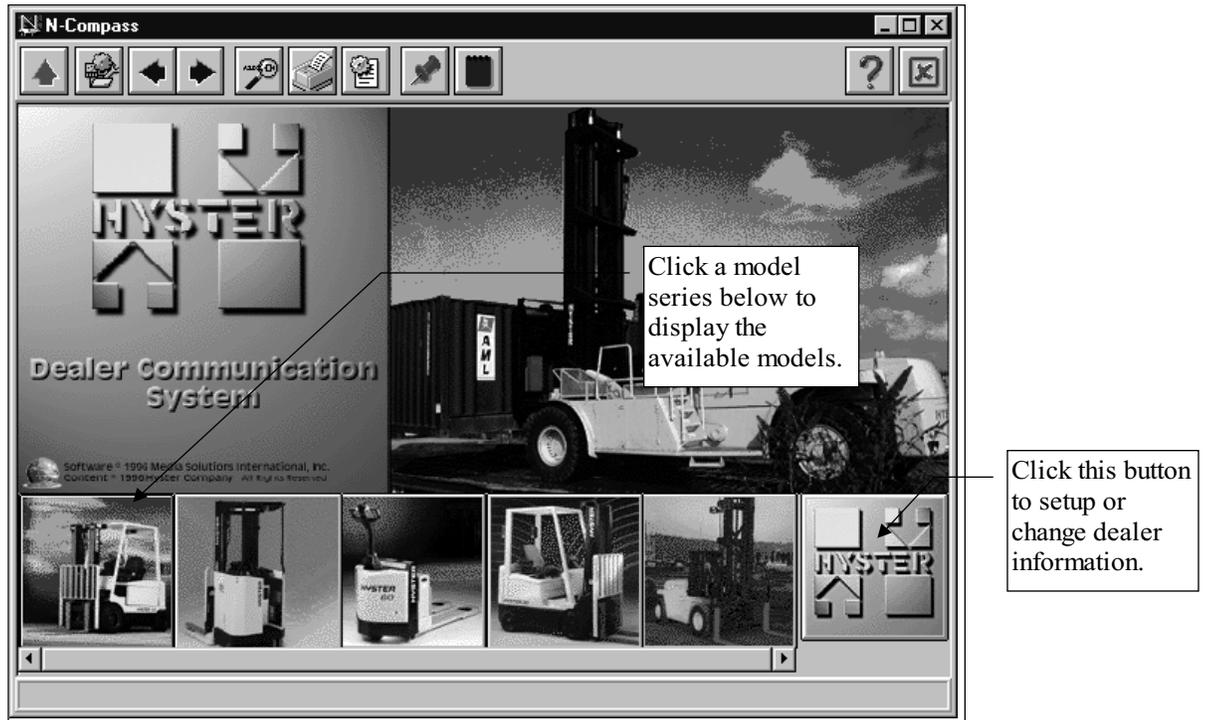
The model series shown across the bottom of the screen show the models available in this release. The following information is in this release:

- **The Hyster model series have all available Parts Manuals and Service Manuals.**

- **Parts and Service Grams are available for all models.**

- **MSDS Sheets are available for all applicable parts.**

Parts Information and Service on Different Discs

Due to the volume of the material included on the discs, a separation had to be made. The information for the Parts Information has been placed on one disc, and Service was put on another. The Service disc must be used to set up the software. If you try to view information that is not on the disc in the drive, you will be prompted with the following screen:

Select "Browse" for a list of available drives.
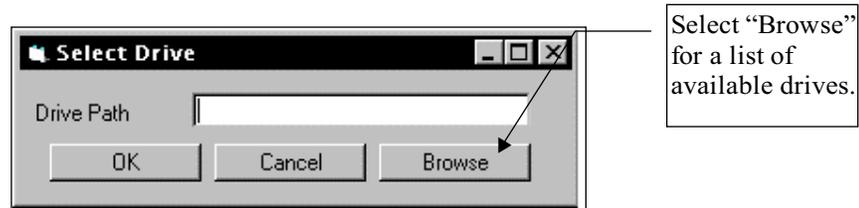
Finding Information on Multiple Disks

1. You can either type in the drive location of the other disc or select the **Browse** button and find the correct drive. (If you have multiple CD-rom drives, you can leave the first disc in and place the second disc in an alternate drive.) Once the alternate drive is selected at this screen, you will not see the **Select Drive** screen again unless you change the location of one of the two discs.

2. If you have only one CD-rom drive, you must remove the disc that is in the drive, put in the other disc, then select that drive. If the disc is not found in the specified drive, the following message will appear:

3. At this prompt, select **OK** and try again.

Dealer Information

To set up or change Dealer information, click the **Hyster Logo** button on main screen and you will be presented with the following options:

This is your mailing address and the name of your dealership.

This is your labor rate, the amount should match your hourly rate.

The Hyster Hypass system is a multiple language system, currently only English is available.

Preferences

Dealer Information

Name: Media Solutions Int

Address: 430 Tenth Street

City: Atlanta

State: GA

Zip: 30318

Dealer Code: 45

Labor Rate: 50

Location

Language: English

Country: North America

Recon   Setup   Ok   Cancel

This is your dealer code as supplied to you by Hyster.

This is where you set the country you are in to allow for pricing and section changes based on your country.

This is where you set up Recon and the business system interface.

This button sets font size and zoom levels.

Business System Setup

To setup or change business system settings, click the **Recon** button from the Dealer Information screen. The Password dialog box appears:

**Enter Recon Password**

Password [   ]

[Ok]   [Cancel]

Enter a valid password and you will be presented with the following options:

Recon

Recon Information

User Name: [   ]

Password: [   ]

Phone Number: [   ]

Phone Book Entry Name: [   ]

Timeout Setting (in sec.) [90]

Output Directory [\\orders]

Ignore the top portion of the screen.

Business System Information

☑ Access Business System

This box should be checked if the business system is to be accessed.

Branch: [1]

Manufacturer: [529]

Address: [chicks.net]

Port: [2345]

[Ok]   [Cancel]

This is the branch number assigned to the dealer.

This is the code used by the dealer to refer to Hyster parts.

This is the port that the business system software is running on.

This is the IP address of the computer running the business system software.

When the **Access Business System** button is checked on the **Recon** screen, the # button appears on the toolbar at the top of the screen. This is the customer number button which allows you to enter the customer number if it is known.

Navigator

After selecting a Model series, the system will display a list of individual models associated with that model series. For example, if you click the "Electric Motor Rider Trucks" thumbnail, the model numbers will be displayed.

CLASS 1 - ELECTRIC MOTOR RIDER TRUCKS

```
A20-30XL (A203)
J40-65XM (A216)
E30-60BS (B108)
J25-35BS (B160)
J40-60XL (B168)
E70-120XL E100XLS (C098)
E40-60XL (C108)
E25-35XL (C114)
J25-40XMT (C160)
E25-40XM (D114)
E20-30BS (B114)
E40-65XM (F108)
```

Ok
Cancel

Listing of models.
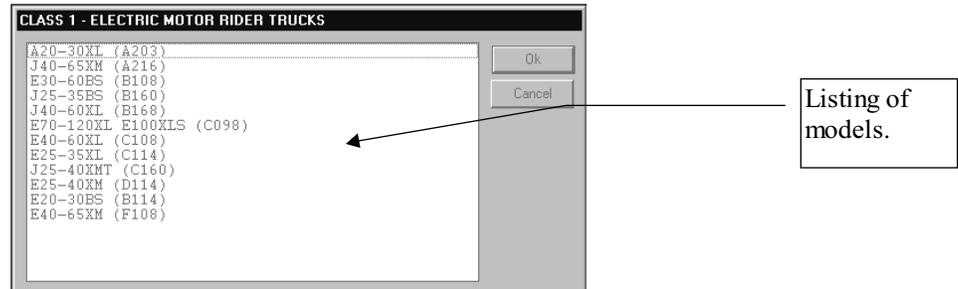
After selecting a model, the system will launch the Navigator. The Navigator allows you get to any information stored in the system. It is very similar to the table of contents in the existing printed material. For example, if you select the "J40-65XM truck", the Navigator will open and show:

J40-65XM (A216) - PARTS MANUAL

```
FRAME
DRIVE AXLE
STEERING
BRAKE/ACCELERATOR
ELECTRICAL
HYDRAULIC
TWO-STAGE LIMITED FREE-LIFT MAST
THREE-STAGE FULL FREE-LIFT MAST
TWO-STAGE FULL FREE-LIFT MAST
OPTIONAL
```

Select a section

Click here to search for parts or service topics

Click here to exit the Navigator and return to the main screen.

Click here to view the selected model's Service Manual.

Click here to view the selected model's Parts Manual.

The three icons on the Navigator Button Bar will allow you to toggle between the Parts Manual and Service Manual available for the selected model, as well as the search tool.

When viewing a Parts Manual, you can select a **Chapter** by clicking on the name in the left window. The available **Parts Pages** will appear in the right window. To load a parts page double click it. Parts Manuals will be discussed in more detail in the Parts Manual section of this document.

Click on a Chapter in this window.

The available Parts Pages appear in this window.
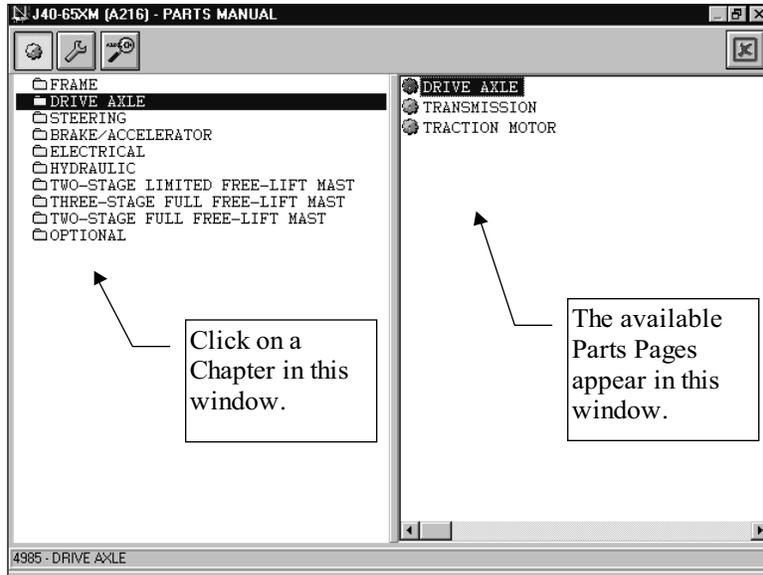
When viewing Service Procedures, click the chapters in the left window. In some cases, sub-chapters will appear. The available **Service Procedures** will appear in the right window. Double click a Service Procedure in the right window to view the Procedure.
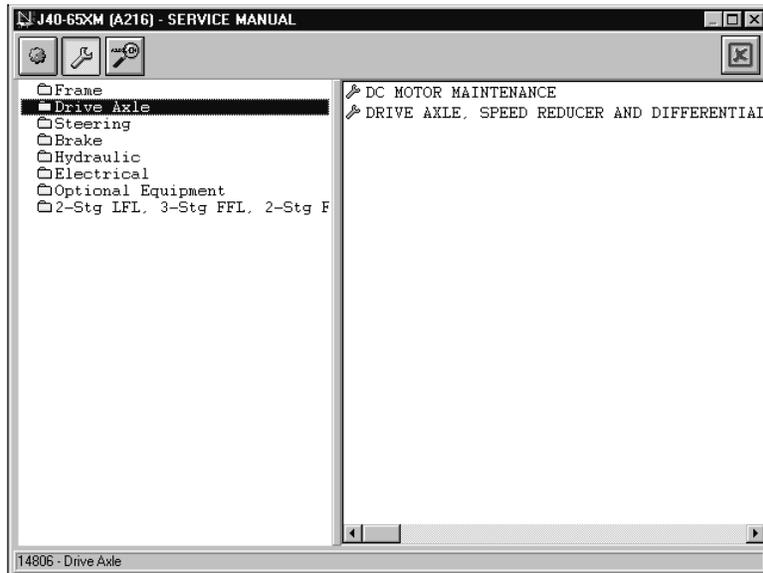
Parts Manual

Parts manuals are accessed from the main screen by selecting a model series, a model and then a page from the Navigator. To return to the main screen anytime, click the **Go to Main Screen** icon. If you were to select a model by clicking on the icon at the bottom of the main screen, followed by the model name, the system will launch the Navigator displaying available Parts Manual Sections for that model. The following sections are available:
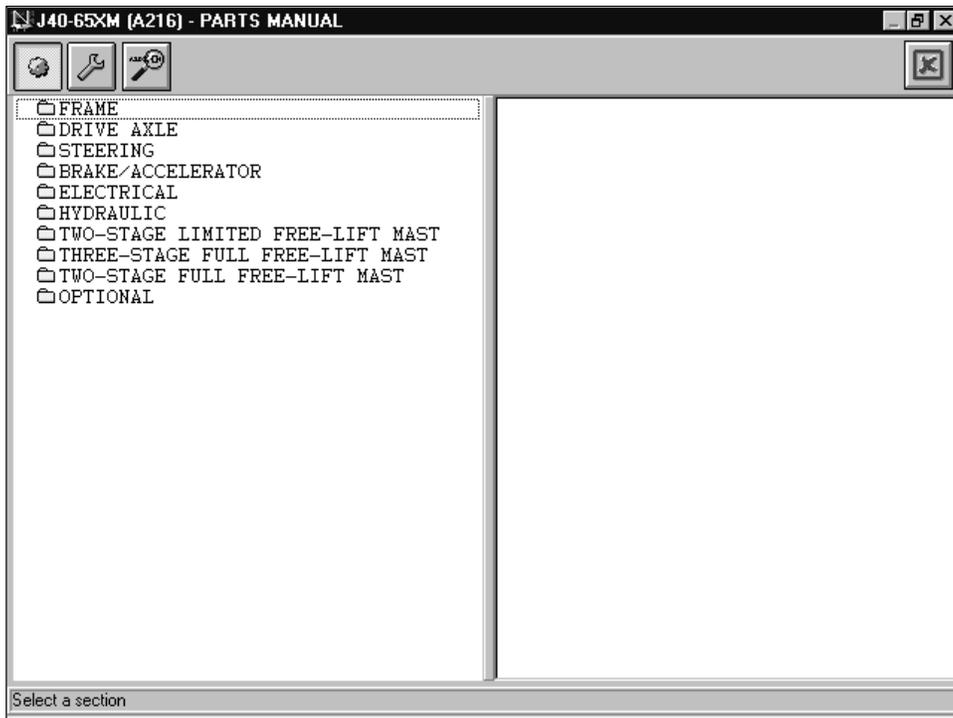

To see the available Parts Diagrams for the Drive Axle Section, click the Drive Axle chapter and the Parts Pages in the Drive Axle section will appear on the right side of the Navigator:
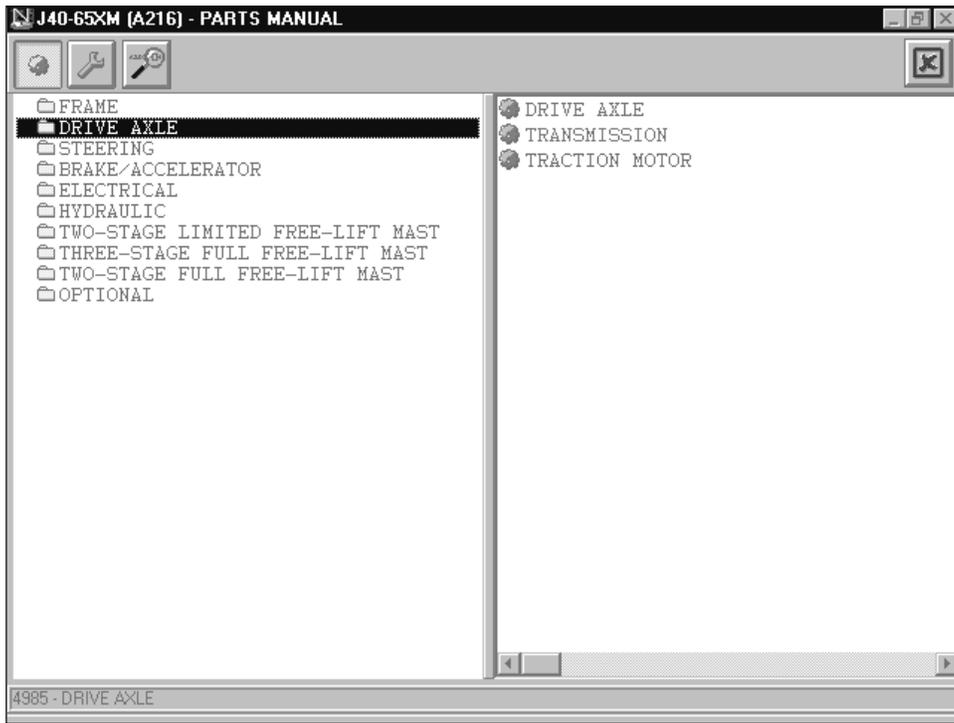
Note that all Parts Pages have a **Gear** icon. This will allow you to identify what type of information is on a page is without loading it. To load a Parts Page double click the page name.

For example, if you want to view the "Drive Axle" double click that description to view the parts page information. This includes the illustration or Exploded Parts Diagram, and the part number listing, or Bill of Materials. You can order parts, view any of the parts information, and get pricing information from this page.
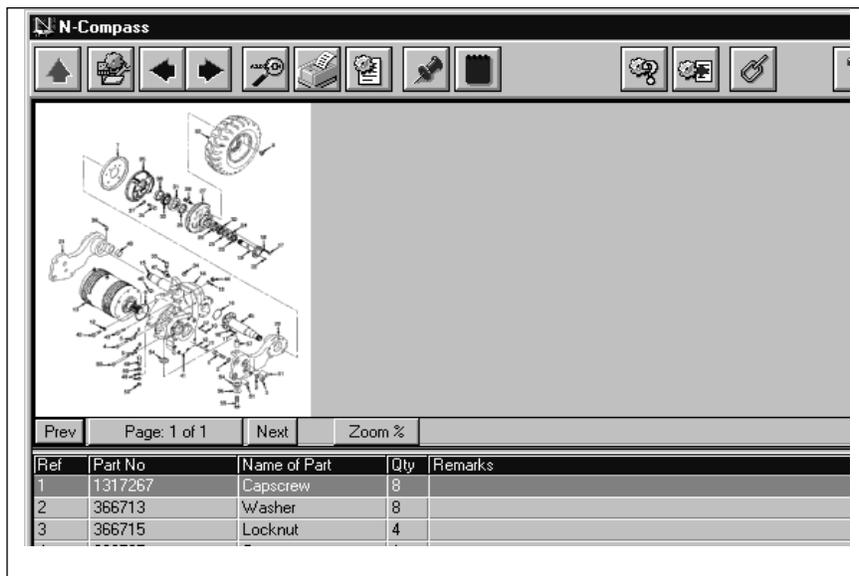
The Parts Diagram will appear on the top of your screen, the Parts Listing will appear on the bottom. If your PC runs 800*600 or higher resolution, you can use the Window **Maximize** button to view more of the Parts Diagram and Parts Listing.

Please note that the Parts Manuals will display the Reference Number, Part Number, Description, Quantity, and Remarks field.

Scroll left and right here if your display does not display all of the parts information.

Scroll up or down through the parts list here.

Zooming on Parts Diagrams

You can zoom into the Parts Diagram by double clicking on the part of the drawing you wish to zoom in on. For example, if you were to click in the upper right section of the drawing on our page, you would see:

Once you are zoomed into an image you can move the image around by clicking anywhere on the image and holding the mouse button down to "grab" and move the image. With your mouse button held down, you can drag the image around the screen to see other parts of it. When you start to drag the image, your cursor will change to a hand.

You can drag the image in any direction.

In addition, you can control how much of the parts list or parts drawing you see. You can drag the parts list bar up or down to view more or less of the parts drawing. If you move your mouse over the bar separator, you can drag it up or down. This functionality is illustrated below
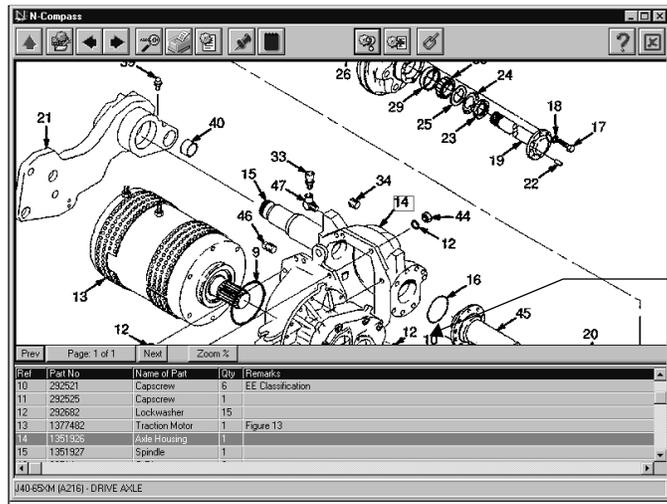
If you move your cursor over this bar and hold down your primary mouse button, you can move the parts listing up or down.

In addition there are a few shortcut key commands to allow you to change the view very quickly. These are as follows.
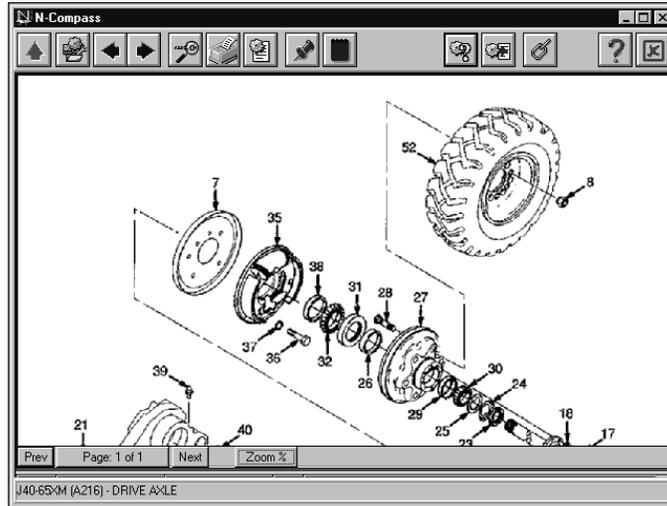
**F9** will allow you to quickly view only the parts drawing. Press the **F9** key again to return to normal mode. Be patient, it will take a few seconds for the system to refresh the screen.
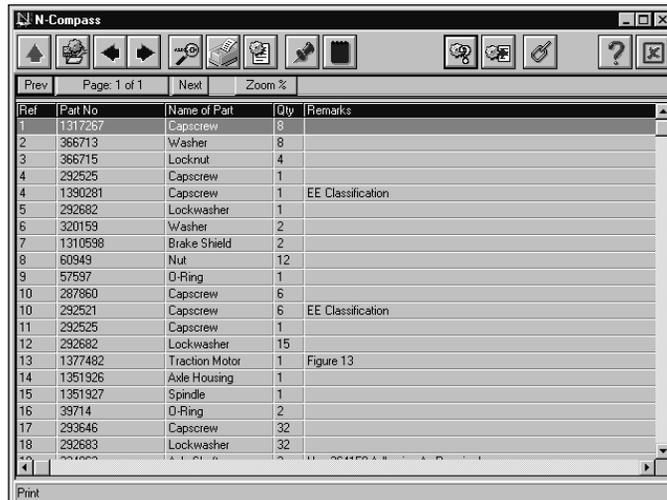
F8 will allow you to quickly view only the parts listing. Press the **F8** key again to return to normal mode. Be patient, it will take a few seconds for the system to refresh the screen.

If you have trouble returning to normal mode, hold down your **Alt** key and press **F8** or **F9** (**ALT+F8** or **ALT+F9**). This will set the splitter bar in the middle of the viewing area. You can then move it up or down as discussed above. Be patient, it will take a few seconds for the system to refresh the screen.

You can print the Parts Diagram and Parts List at any time by clicking the **Print** icon on the top button bar. The system will scale the drawing to the available paper size and print the parts listing on subsequent pages. It will take about 30 seconds for the system to complete the printing so be patient.

Advanced Users

In addition to scrolling right and left, you can control the width of the fields in the parts list. For example you can position your mouse over one of the column's as shown and drag it left or right by holding down your primary mouse button.
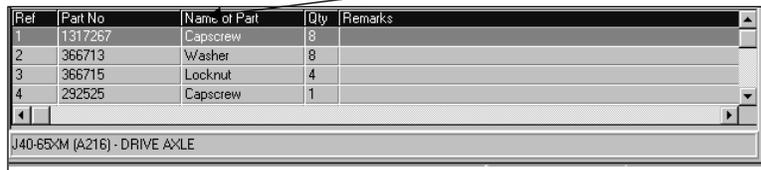
When you place your mouse over the column edge, the pointer will turn to arrows. If you depress your primary mouse button you can drag that column to the width you would like.

You can also move one column to another location by clicking on and holding down your mouse over a column name. You can then drag that column to another location.

Part Number Lookup and Ordering

After you have loaded a parts page, you can move your mouse over any number on the Parts Diagram and the cursor will change to a hand. If you click label number 13, the part will be highlighted below:

In addition, if you double click a part in the parts listing, that part label will be centered on the screen.
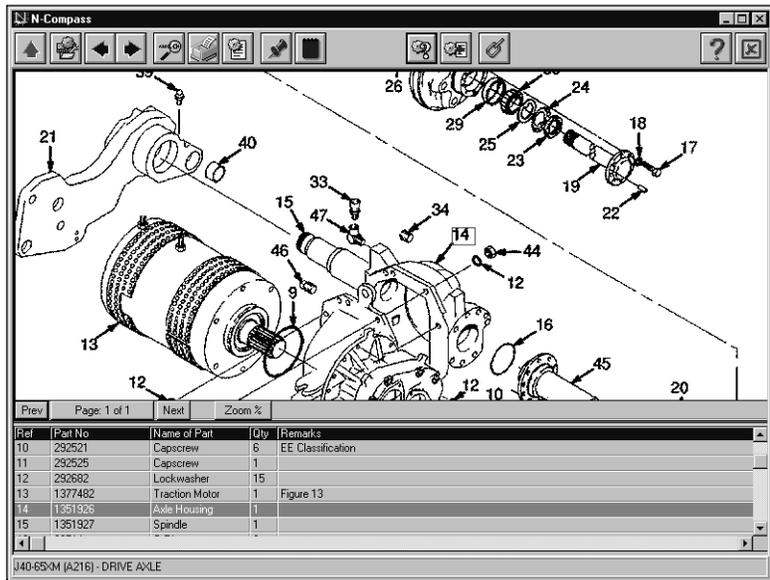
Once you have found a part, you can look up parts information or copy that part to an order or pick list. The icons used for manipulating a part are as follows:

Review a parts order or create a new order.

Look up information on the highlighted part.

Click here to add the highlighted part to the order.
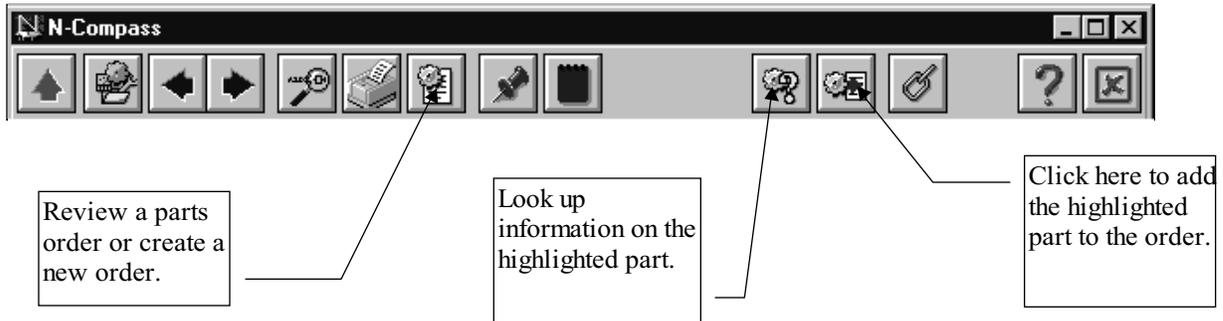
If you click the right mouse button after highlighting a parts entry, you will be presented with a menu which gives you the options shown to the right. The "Add to Order" and "Part Info" options perform the same action as the buttons described above. The Jump to Link option allows you to instantly go to the Figure number mentioned in the Remarks column, if applicable. The "Add to Pick List" option allows you to add that part to a temporary list rather than adding a part straight to an order.

Add to Pick List
Add to Order
Jump To Link

Part Info
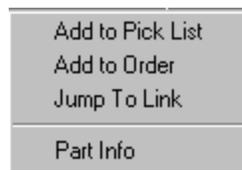
Parts can be added to a pick list from multiple parts manuals. To view the pick list that you have created, press **F4**.
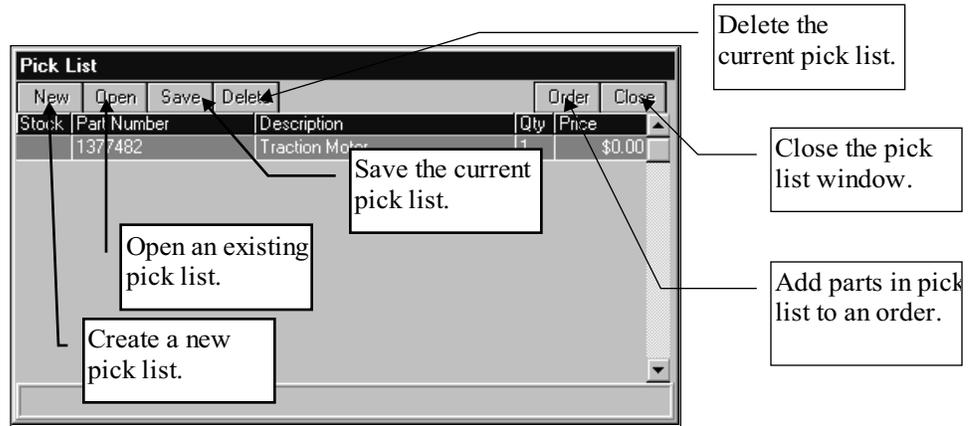
While viewing the pick list screen you have the choice to create a new pick list, open an existing pick list, save the current pick list, delete the current pick list, add all the parts on the pick list to a new or existing order if an order is not currently open, or close the pick list window.

The quantity field displays how many of each part should be ordered. The stock field represents how many of each part are actually in stock.

If you would like to see additional information regarding the highlighted part, click the **Parts Information** icon or right click the mouse and select "Part Info."
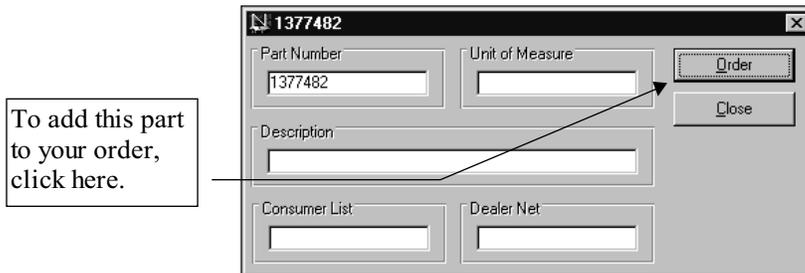
If you have not loaded or created a new order, the system will prompt you to create a new order or open an existing order.
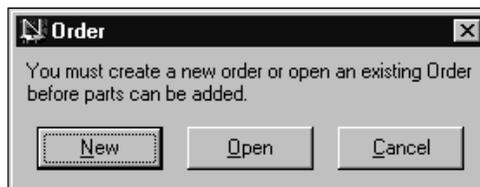
If you are creating a new order, the system will ask you for basic order information before proceeding. This order information will appear if you need to load an old order or an order in progress.

If you "Open" an order, the system will show you all orders processed to date. You can select any order to load it.
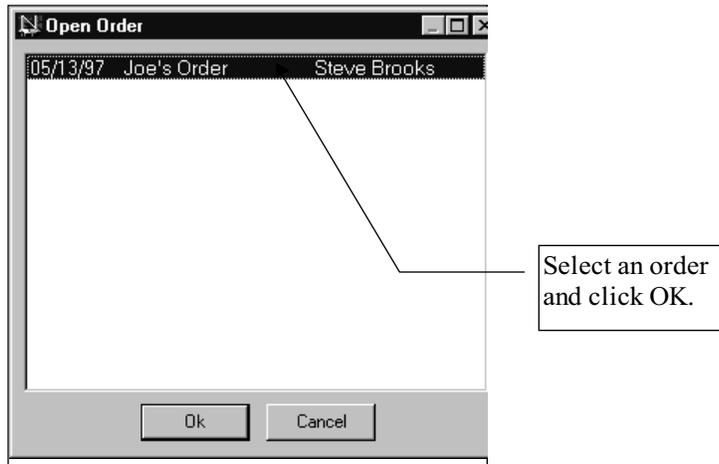
After you have built an order, you can review your order at any time by clicking on your **Parts Order screen** icon. Your order will look like the following:
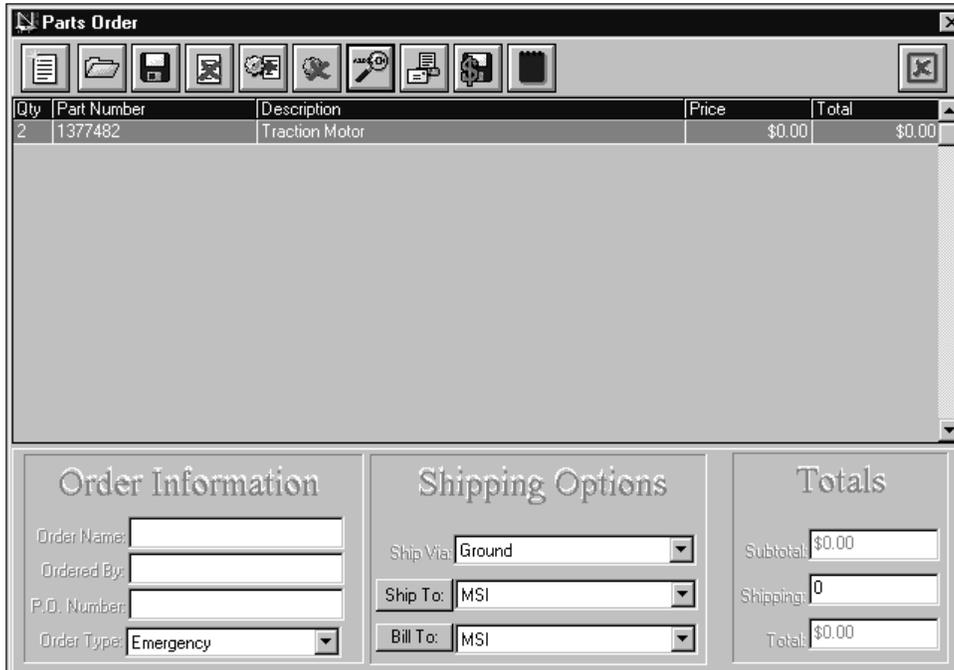
To print the order, simply click the **Print** button. The following screen will be displayed:
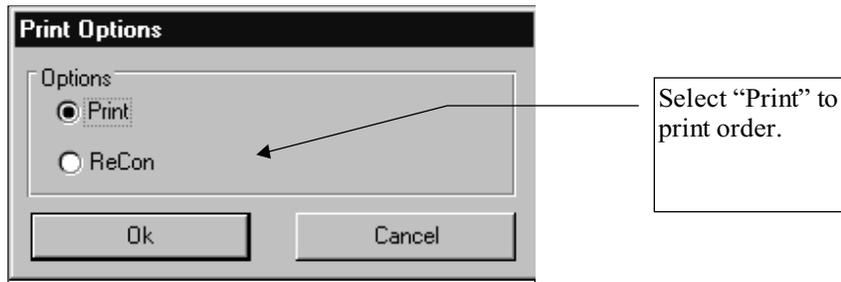
Select "Print" to print order.

Updating Pricing Information

If Hyster decides to change pricing information before the next release of the software, a floppy disk may be issued to dealers that contains the updated prices.

New Order

Open Existing Order

Save Order

Delete Current Order

Pricing update icon on the Parts Order Screen.

Print

Search Tool

Add Part to Order

Remove Selected Part From Order
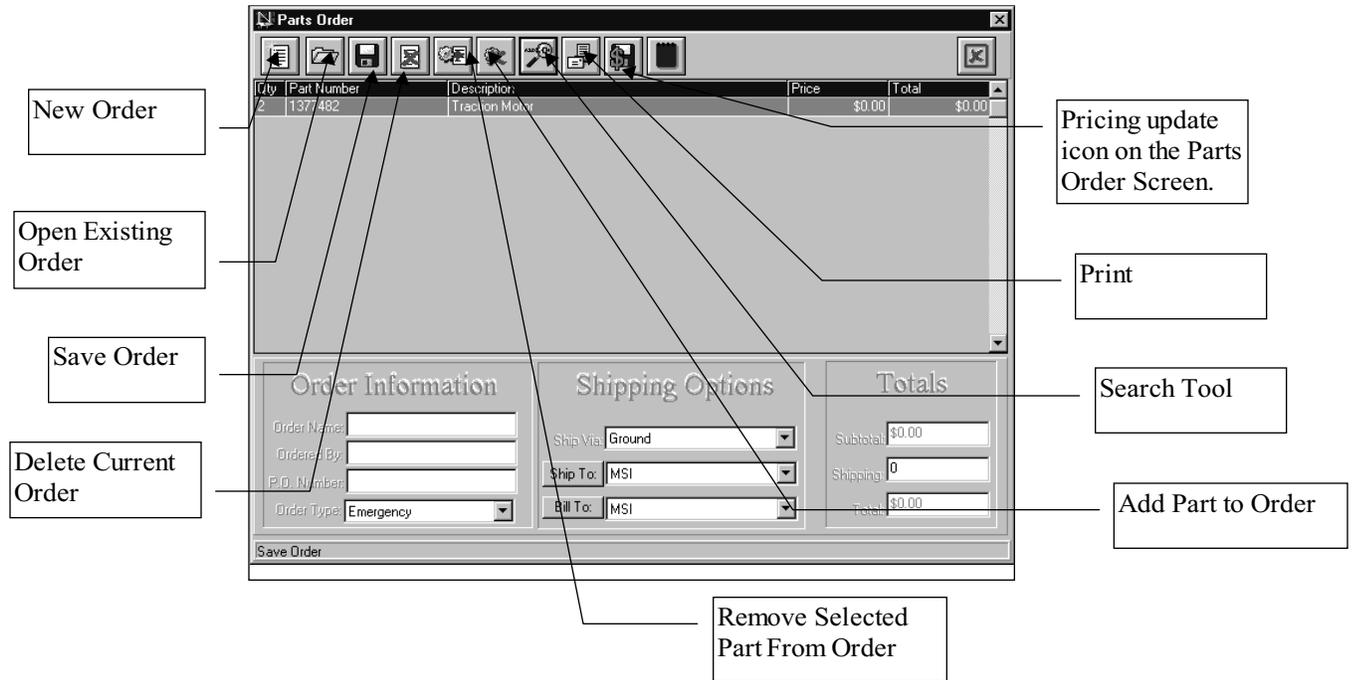
When you receive a floppy, follow the instructions printed on the outside of the floppy. After completing this step, from the Parts order screen click the **Update** button, and follow the instructions for the update procedure. Please keep in mind that this process may take a while to complete.

Service Procedures

While at the main screen you can access service manual information by selecting a model series followed by a model. If the Navigator is already open and you have selected the model you would like to view, there is no need to return to the main screen. To change models, return to the main screen anytime by clicking on the **Go to Main Screen** icon. For this example, start by selecting the Electric Motor Rider Trucks by clicking on the icon at the bottom of the main screen. Then select the J40-65XM model. The system will launch the Navigator displaying available Manual Sections. Click the **Service Manual** icon on the Navigator to load the Service Manual.
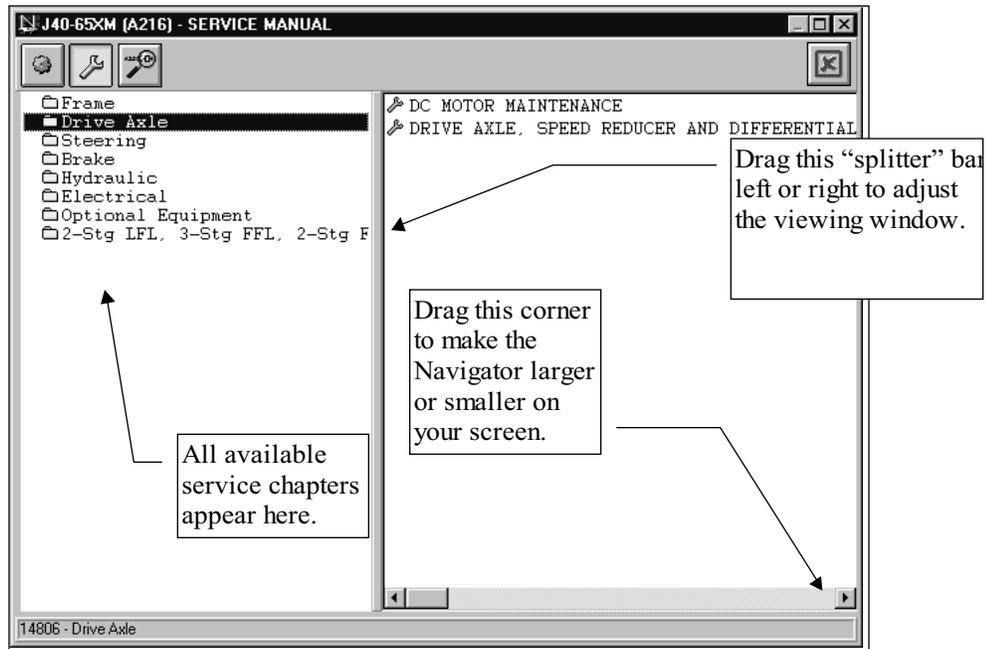
The available sections in the Service Manual will appear in the left hand window. If you are working on a computer that displays more than 640x480, you can change the size of the Navigator to see more or less information.

The selection of a "chapter" in the Service Manual will display the available Service Topics in the window on the right. Please note that all Service Topics have a **Wrench** icon to the left of each page description:

Double click a Service topic to load it. For example, if you selected the "Drive Axle, Speed Reducer" section, you would be presented with the following screen:
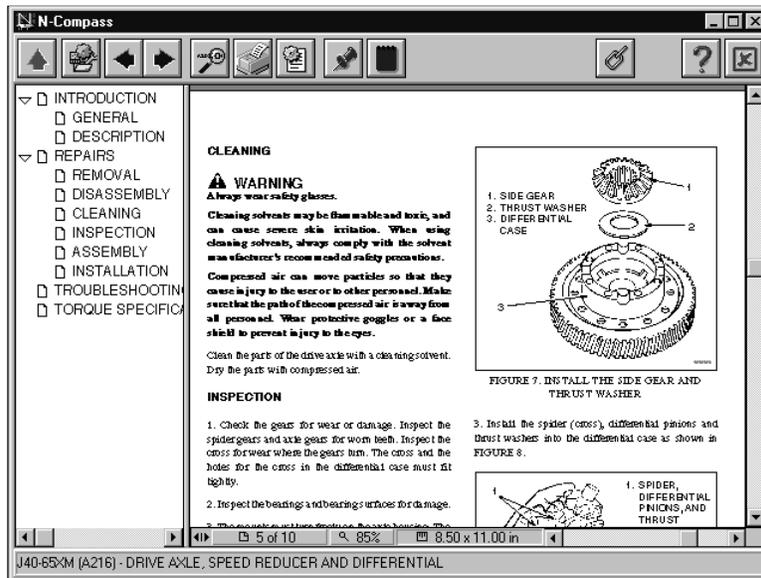
Service Features

The service pages have a status bar which displays the number of pages in the document, as well as the page you are on, the zoom percentage (this will vary dependent on how big your screen is), and the paper size.

If you click the **P**age **Number** button in the status bar you can enter a page number to jump to.

If you click the **Zoom percentage** button on the status bar, you can set the zoom to an exact percentage, as in 200%, "Fit Page", which will fit the entire page into the window, "Fit Width", which will fit the entire width of the page into the window, or "Fit Visible", which will fit the visible width of the page into the window (this is the default).

This is the service topic, to move the page click and drag the page under the cursor (exactly like parts pages).

These are two bookmarks for the Service topic. Click on one to go to that information.

N-Compass

INTRODUCTION
  GENERAL
  DESCRIPTION
REPAIRS
  REMOVAL
  DISASSEMBLY
  CLEANING
  INSPECTION
  ASSEMBLY
  INSTALLATION
TROUBLESHOOTING
TORQUE SPECIFICA

CLEANING

⚠ WARNING
Always wear safety glasses.

Cleaning solvents may be flammable and toxic, and can cause severe skin irritation. When using cleaning solvents, always comply with the solvent manufacturer's recommended safety precautions.

Compressed air can move particles so that they cause injury to the user or to other personnel. Make sure that the path of the compressed air is away from all personnel. Wear protective goggles or a face shield to prevent injury to the eyes.

Clean the parts of the drive axle with a cleaning solvent. Dry the parts with compressed air.

INSPECTION

1. Check the gears for wear or damage. Inspect the spider gears and axle gears for worn teeth. Inspect the cross for wear where the gears turn. The cross and the holes for the cross in the differential case must fit tightly.

bearings and bearing surfaces for damage.

1. SIDE GEAR
2. THRUST WASHER
3. DIFFERENTIAL CASE

FIGURE 7. INSTALL THE SIDE GEAR AND THRUST WASHER

3. Install the spider (cross), differential pinions and thrust washers into the differential case as shown in FIGURE 8.

1. SPIDER,
   DIFFERENTIAL
   PINIONS, AND
   THRUST

Status bar.

5 of 10   85%   8.50 x 11.00 in

J40-65XM (A216) - DRIVE AXLE, SPEED REDUCER AND DIFFERENTIAL

This is what page you are on out of the total number of pages.

This is the percentage of zoom. If you click here you can set the zoom level to a specified percentage, or "Fit Page", "Fit Width", and "Fit Visible".

This area is the paper size (all documents will print on both A-4 and US letter sized paper.)

Search

The search function that is available in the system gives you the ability to search for Parts information or Service Procedures from anywhere in the system. If you select the **Search** icon (or press **F3**) the system will prompt you for "parts", "service", or "parts and service gram" and then display the appropriate search dialog box. If you are in a service page or bulletin and select the **Search** icon, you will have a fourth option of "current topic". Keep in mind that you can search for service from a parts manual and parts from a service manual.

When you search for Parts information, the Search Dialog Box allows you to specify what information you want to search for:

Click here to start your search.

Enter your part number or key word here.

Allows you to define whether you want to see only exact matches or partial matches.

Select the model in which you want to perform the search.

Other will allow a search of all Quantity and Remarks fields.

Search results will appear here. (See next page.)

Displays part information.

Define what information to search for; Part Number, Description, or Other.

Click here to close the Search dialog box.

Automatically adds part to order.

Shows parts diagram.

You can search for a Part Number looking for an exact match or partial match. You can also search the Remarks field and Quantity field by selecting "Other". If we searched for an "axle", selected "Part Description," and "Partial Match" the system would return the following results:

The parts search results show the "matches" to your search, the part number, part name, model description, quantity fields, and Remarks. You can then double click that part to load the Exploded Parts Diagram (EPD) out of the Parts Manual that the part number appears in.

*If you load a Parts Page and it is the incorrect information, select the **Search** icon or press **F3** to reload the search results from your last search. To start a new search, key in your new criteria and click the **Start Search** button.*

If you want to search for Service Procedures, click the **Search** icon or press **F3** and select the "Service" option.
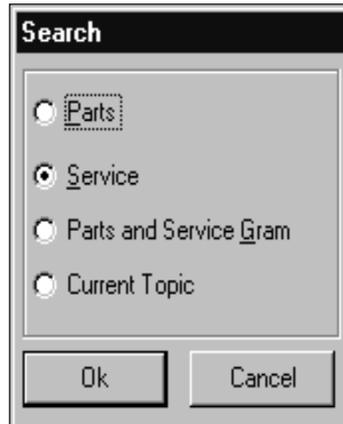
The system will show the Service Manual Search Dialog Box:

Type in your search criteria here.

Search results will appear here.

Click here to start your search.
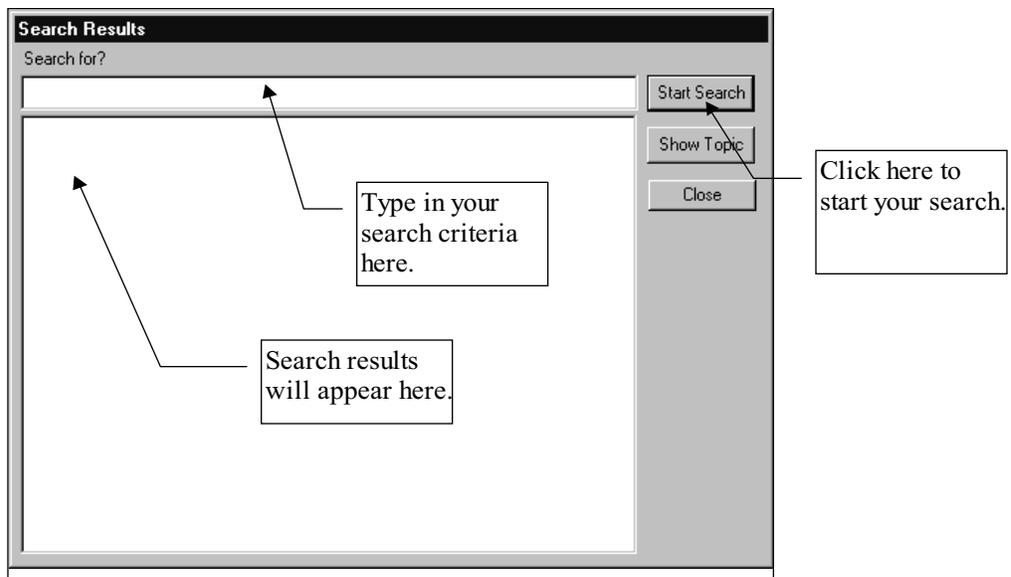
If you wanted to search for Service Procedures that reference the Axle, key in the word "*axle*" and click the **Start Search** button:
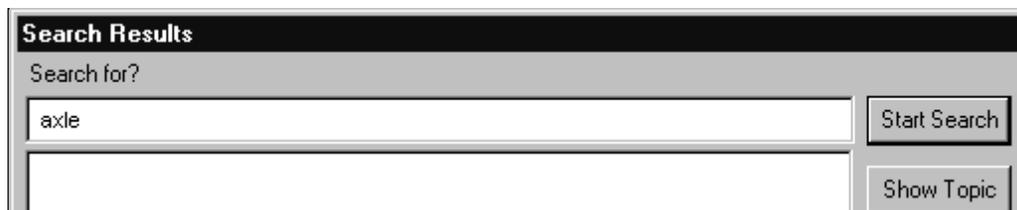
The system will then search over 10,000 pages of Service Procedures and return every Service Procedure that references the word "axle".

The search results for the Axle are as follows:
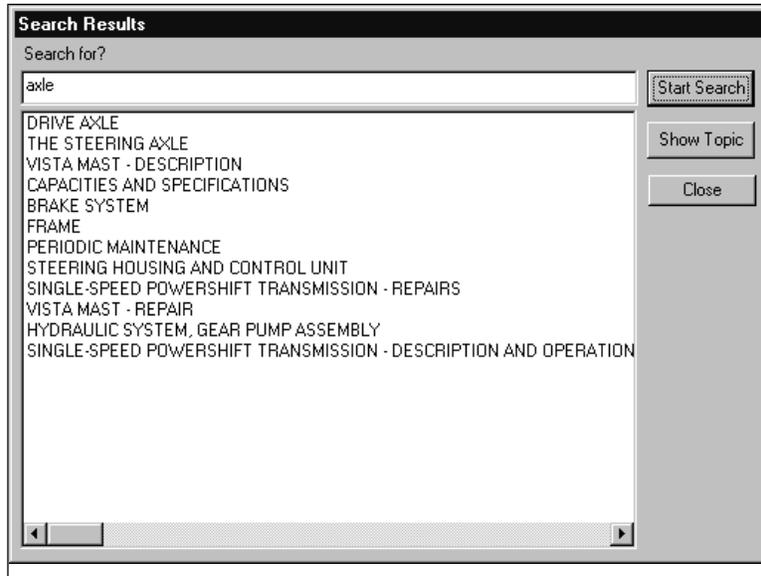
To view a Service Procedure click the name of that procedure and click "Show Topic":
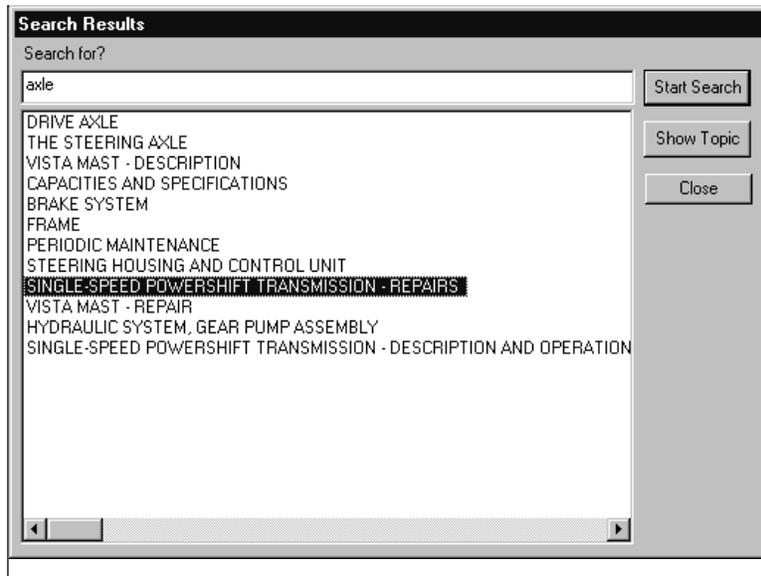
The system will then load that service topic for viewing:

Print this procedure.

Search again or review the last search results.

Scroll bar.
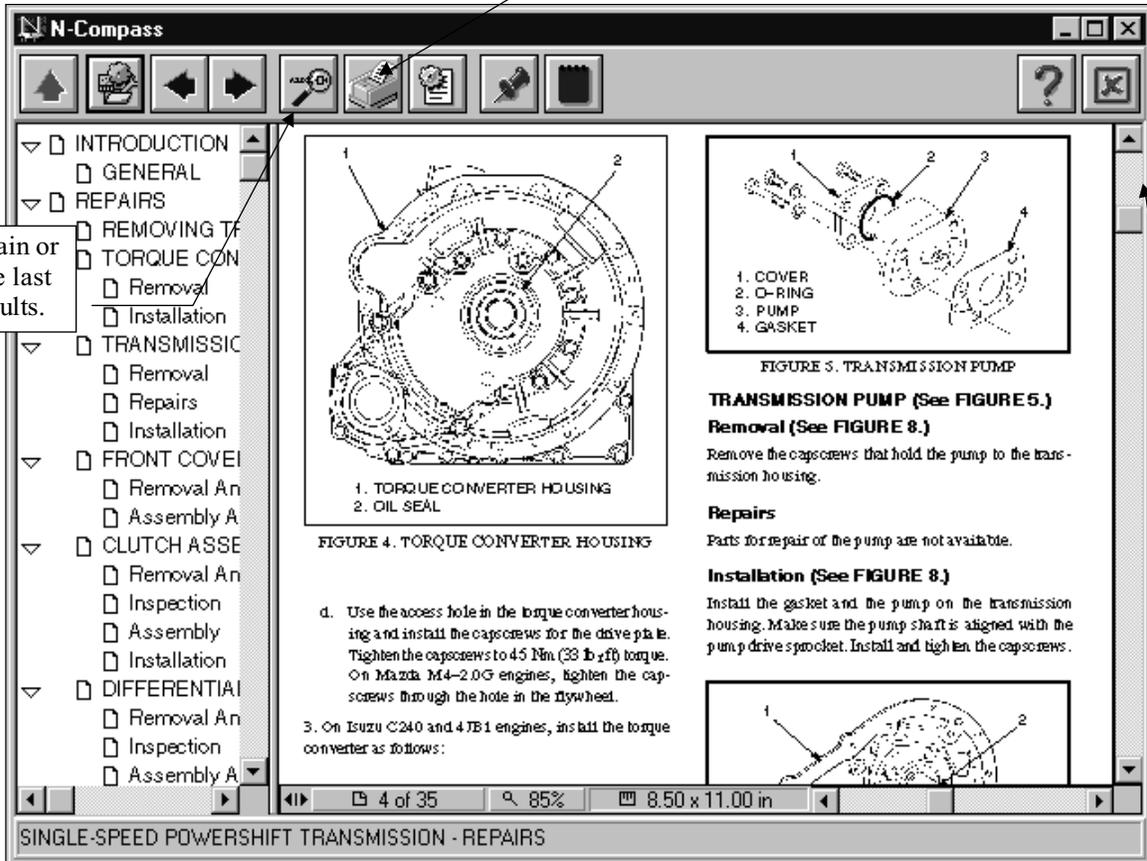
Search Current Topic

To search by "current topic" you must have a service topic or parts and service gram open. This allows you to search for a specific topic within the topic you are viewing. When you select "current selection" from the Search box you will be presented with the following screen:
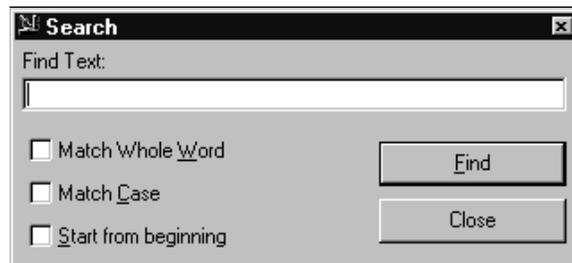
Enter the word you are trying to find in the **Find Text** field. If you would like, you can choose to have the search "Match Whole Word", "Match Case", or "Start from Beginning", which will restart the search, by checking the appropriate box.

Advanced Searching

You can also use advanced search criteria in the Service Manual only. You can search for *"steering" and "axle"* and the system will show you Service Procedures that show the word "*steering*" *and* the word "*axle*" in the same procedure. You can also search for *"steering" or "axle"* and you will see every topic that contains the word "*steering*" *or* the word "*axle*". Try it! It will help you find what you are looking for in seconds!
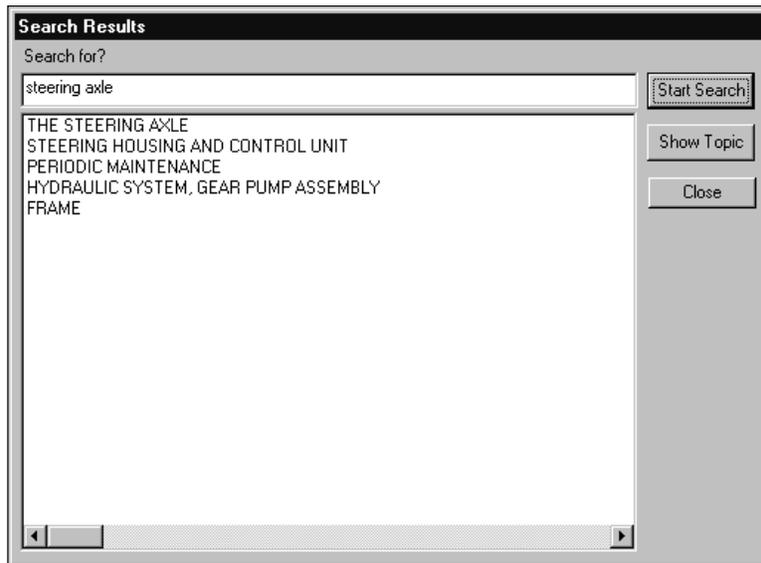
Notes

The blue notebook is the **Notes** icon. If notes are available where you are, the notebook will "flash" between an open blue notebook and an open yellow notebook.

The **Notes** button will allow you to place "Post it" style notes on any screen or every screen in the system. For example, if you wanted to place a note on a particular screen, you would click the **Notes** icon (or **F6**) and see:

Delete the Current Note: Click here to delete the current note.

Exit: Click here to exit the notes screen and return to the Parts and Service System.

New Note

Open Notes: Click here to look at multiple notes or all notes in the system.

Save: Click here to save your note.

Click here to save your note.

Type your note here...

Status Bar: Provides Tool Tip as you move your mouse over the icons.

This is a note.

Type in your note and press **Save** (the floppy disk).

When saving your note, you can name and attach it to this page only or to all pages. To attach it only to the Current Location there must be an "X" in the box. (If there is not one there already then click the box once.) *If you do not mark the Attach to Current Location button, the note will display on every page of the manual.*

Save Note

Name: MY NOTE

☐ Attach to Current Location

Ok   Cancel
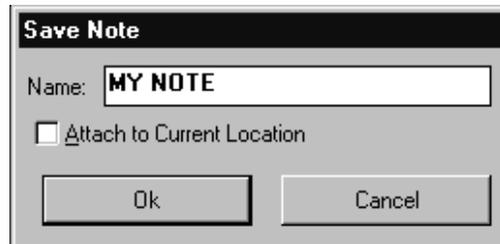
After saving your note, each time you go back to that page, the **Notebook** icon will be flashing indicating that notes are available. When you click on the **Notes** icon, a list of available notes will appear:

Open Note

MY NOTE

Turn this on to show all notes regardless of location.

☐ Display ALL Notes

Ok   Cancel
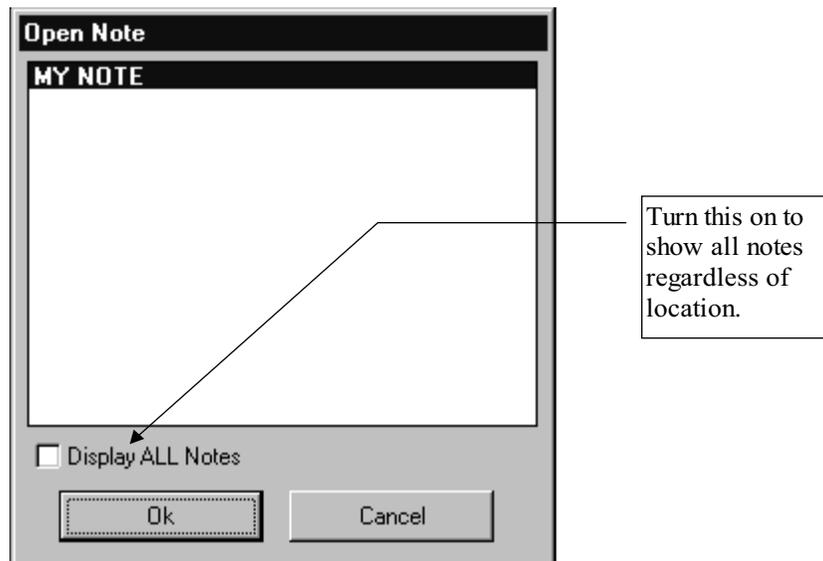
If you click in the **Display ALL Notes** box, the list will show all notes in the system regardless of location. This can be helpful in finding a lost note. If only one note is attached to the current page when you click the **Notes** icon, that note will automatically open:

Using the **F6** key will always launch a **New** note.

If you want to delete a Note, simply load the note and click the **Delete Current Note** icon. This will permanently remove the note from the system.
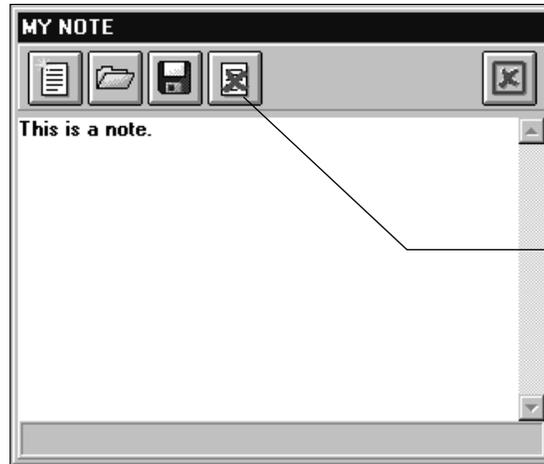
Delete Current Note:
Click here to delete a
note permanently.

MSDS Sheets

MSDS Sheets work like notes. Click the **MSDS Sheets** icon anytime to view available MSDS sheets. The MSDS Sheets Screen looks like the following:

Every MSDS Sheet in the Hyster Hypass system is viewable from anywhere in the software.

To load an MSDS sheet, double click the MSDS sheet to load or select an MSDS sheet and click **OK**. If we load an MSDS sheet, the screen would look like:

Print the current
MSDS sheet.

Search for
another MSDS
sheet.

View a current
parts order.

N-Compass

L SAFETY
EET
PWO

3M
3M Center
St. Paul, Minnesota 55144
(612) 733-1110

Hyster Part Number 158859

Pg 1 of 2

3M

DUNS NO.: 00-617-3082

Chemical Family

Trade Name
3M Super 77

3M I. D. Number   62-4434-4935-0   AC&S Division

1. INGREDIENTS	CAS. #	%	TLV (unit)
Hexane	* See below	≈ 34	50 ppm
Cyclohexane	110-82-7	≈ 11	300 ppm
Styrene/butadiene elastomer, terpene resin,			
wood rosin and an antioxidant		≈ 25	
Propane/isobutane/dimethylether propellant		≈ 30	

2. PHYSICAL DATA

Boiling Point	Compressed gas	Solubility in Water	Nil
Vapor Pressure	Compressed gas	Specific Gravity (H_2O=1)	N.A.
Vapor Density (Air = 1)	> 1	Percent Volatile	75
Evaporation Rate (ether =1)	> 1	pH	N.A.

Prev   Page: 1 of 2   Next   Zoom %

3M

Parts and Service Gram

To view a parts and service gram, click the **Grams** icon on the Toolbar. This will display a menu of all parts and service grams that apply to the model you are currently working in. Check the Display All box at the bottom of the screen to display a listing of all available parts and service grams. To open a parts and service gram, double-click on the desired entry.

Number	Name	Models	Date
A-A-040	Piston and ring sets are available for Perkins engir	H150-275H, H110-150F, H7	10/1/76
A-A-052	Procedures for eliminating ombustion chamber cap	H30-60F, H30-60H, KE, H60	3/1/95
A-A-060	Tufftrided crankshaft identification	S60-100B, H30-60F & H, H6	11/1/74
A-A-061	Lip type rear oil seal change information for Perkin	H60-80C, S60 - 100B	5/1/77
A-A-062	Revised headbolt torque specifications for Ford 4-	H30-60H	8/1/75
A-A-065	Lip type rear oil seal change information for Perkin	H150 - 250E, H300A,P125-1	5/1/77
A-A-066	Perkins 3.152, 4.203, and 4.236 crankshaft thrust	S30-50C, S60-100B,S125-1!	9/1/75
A-A-067	Lip type rear oil seal change information for Perkin	S30-50C	5/1/77
A-A-068	Lip type rear oil seal installation procedures (See A	H150-275H, H110-150F, H7	5/1/77
A-A-069	Lip type rear oil seal installation for Perkins 4.236 e	H110-150F, S125 - 150A, P6	5/1/77
A-A-070	New load and temperature guidelines for breaking	H150-275H, H110-150F, H7	1/1/79
A-A-077	Proper procedures for installing the various , replac	H150-275H, H110-150F, H7	8/1/80
A-A-079	Procedures for selecting and installing improved in	M200-400H, 4150 - 250E, H	5/1/79
A-A-082	Information to provide guidelines for determining th	S30-60ES	6/1/79
A-A-084	Release of the improved versions of the Perkins .3	H150-275H, P150-200B, H3	12/1/96
A-A-085	Correct procedures for installing the improvedpisto	H300-350B	2/1/80
A-A-087	Change of cadmium plated connecting rod nuts(sil	H700-920B, H360-620B, H3	2/1/82
A-A-088	New. improved crankshaft seals on variousPerkin:	H700-920B. H360-620B. H3	12/1/83

[X] Display ALL Part & Service Grams

[OK]   [Cancel]