PARTS PRO CLASSIC

CLASSIC EDITION #8

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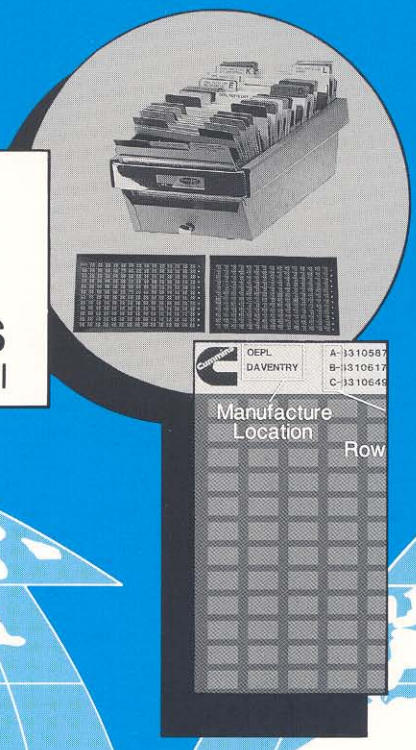
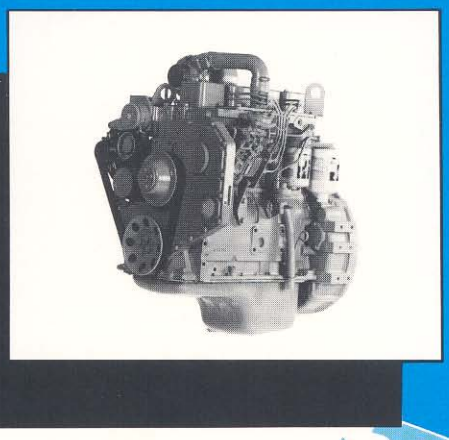
Cummins
Parts Professional





parts professional 8

INVEST IN THE BEST

Letter From the Editor

Dear Parts Professionals,

Our founding editor, Joan Mobley, has accepted a new and challenging position within Cummins Engine Company. She is now in our OEM Service department functioning as a link between Cummins and the OEM's service personnel. She will be working with the Cummins field service people to resolve OEM issues relating to warranty and policy. She will continue to have training responsibilities as they apply to new product familiarization and special programs for OEM factory, field, and branch personnel.

Kristin Bridges and Sarah Hart will now take on responsibility for the Parts Professional series. Both Sarah and Kristin are committed to continuing the series for which Joan has done so much. We appreciate all the work Joan has done to bring the program from only a concept to a strong, widely read training publication. We wish Joan continued success in all her endeavors.

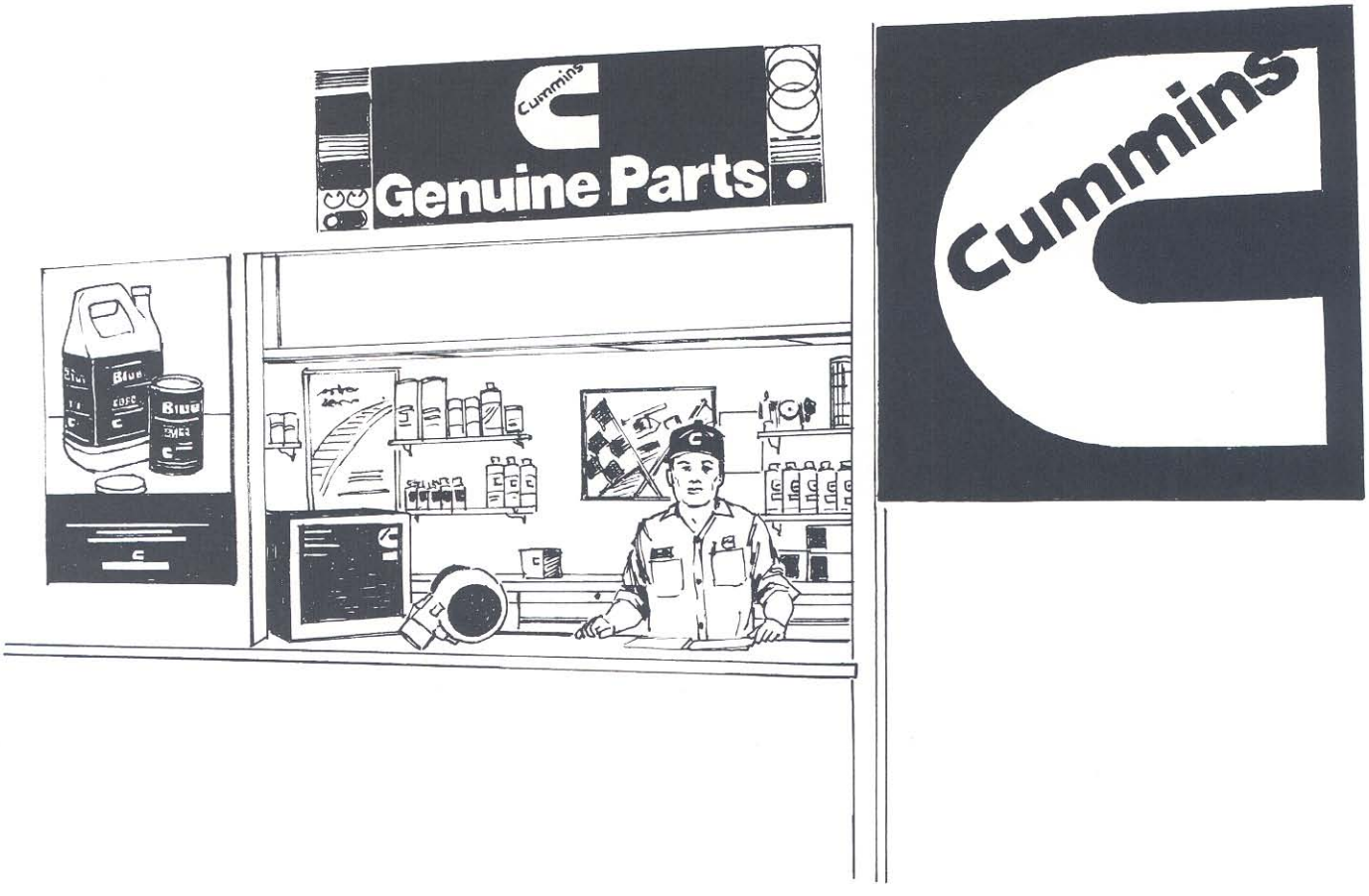
Send us your suggestions and help us continue to develop this training tool geared towards you -- the Cummins Parts Professional.

Dale Roll

Dale Roll

Director - Parts Marketing

Cummins Parts Professional Test - Product Familiarity is the Key to Selling Success



Welcome to Parts Professional Number 8!

This issue provides a total look at the Cummins Filmcard System. The plan is to familiarize you with the filmcard system which provides you with the tools for locating Genuine Cummins Parts, Supersessions, and Pricing. We'll begin by providing you with a brief overview of this booklet. First we'll familiarize you with the OEPL (Original Engine Parts List) cards. Then, we'll introduce you to engine identifiers that will help you locate the correct service part numbers for your customers. Then we'll cover the Master Parts Deck and its benefits. Also covered are card ordering information and the reasons for the change to the two-step look up system. Plus, located at the back of the booklet, for your training convenience we've included three practice cards to help sharpen your filmcard usage skills. Keep these by your parts counter for a quick and easy reference.

In addition, you'll find articles on Creative Repowers and the latest Parts Publications.

Parts Professional Booklets

Creative Repowers

I know repower sounds very automotive, but believe me it's not! A repower offers your parts departments associated sales opportunities. This story provides insight into a repower that makes dreams come true!

Submarine Adventure

Disneyland, it is an island of enchantment, yet behind the scenes it is very much like Cummins. Disneyland is a full-fledged manufacturing facility. Disney creators design, specify, and produce parts and assemblies for the purpose of entertaining people from around the world.

As you may recall, Parts Professional booklet 7 covered the B and C Series engines. In that booklet I asked you to think about the many repower opportunities that exist for Cummins products. I've heard many suggestions, but this one from Steve Smart at Cummins West, has to be the most creative. He suggested the repower of the "Submarine Adventure" at Disneyland. Bob Kanno at Cummins West and I conducted a most interesting investigation to bring you this story about a repower from the creative team at Cummins West.

Disney is quite concerned with quality and reliability. These are two major reasons why Disney chose the Cummins B Series engine to repower its Submarine Adventure Ride. I asked Harry Sheridan, Disney technician, why he chose the Cummins B. He told me that durability and quality are both associated with the Cummins name. Disney made its decision to repower after carefully weighing all the facts about the competition and us! However, Disney officials asked me to make it clear that it does not endorse us or any other equipment manufacturer.

Cummins West delivered the first 4B engine more than two summer seasons ago. That's how the Disney family measures time. The 4B, naturally aspirated and without a counterbalancer, accumulated more than 10,000 hours of operation during its two season duty cycle. The daily duty cycle occurs between the hours of 6:00 am and 1:00 am each day that the park is open. Once warmed up in the morning, the engine operates continuously at 1800 rpm and energizes the original power generation unit which was first installed in 1955. The generator supplies fresh cabin air and the power to drive the sub. It also powers a bubble maker and defogging devices for the portholes. Each submarine carries 58 passengers on an adventure beneath the sea.

The engine room is clean and the mounting pads and hook-ups were specially designed and fitted by Cummins West technicians. Maintenance Director at Disneyland, Jim Rye, informed Bob and me that Disney remanufactures each submarine from top to bottom each year. During our Disneyland tour Bob and I witnessed scheduled maintenance in action. The subs are literally renewed from top to bottom. The old engines were being removed and the new 4B's installed. Six of the 8 on-line subs are now powered with the 4B. During remanufacture, wear items are replaced and the sub is sandblasted, painted, and reupholstered. Jim indicated that the 4B's performance allowed them to run two full seasons before it was necessary to take the submarine off line for remanufacture. At the 10,000 hour mark, the 4B was still running strong with only the use of regular scheduled maintenance items. Disney technicians indicated they are pleased with the performance of the Cummins.

This author wishes to thank all the folks at Disneyland in Anaheim California and the folks at Cummins West.

If you're a new Parts Professional or just coming on board the program, you'll be interested in reviewing past issues. Past issues may be ordered from your Cummins Distributor, Bulletin Numbers, 3387320-02,03,04,05,06,07. Exams 2-6 are no longer being graded; however, answers are available upon request. Booklet number 1 covered the NH/NT Head Group and is no longer available. The following is a brief summary of the subjects we've covered so far. In the first four issues we divided the NH/NT into product groups:

- Head
- Block
- Ends
- Accessory

Keep in mind Booklet 5 is no longer current as it covers only three of the five National Overhaul Warranty Plans (NOW) and contains obsolete or superseded part numbers.

Booklet 6 targeted the B and C Series Cummins Engines. Booklet number 7 provides you with an indepth look at the L10 engine.

Overview of the Cummins Filmcard System

Standard Filmcard Deck

The standard Cummins all inclusive filmcard system, Bulletin No. 3379640, is split into nine decks.

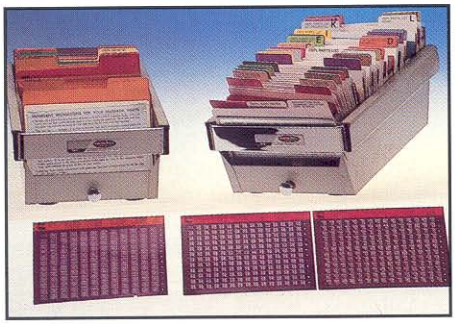
- OEPL by engine serial number (one-step look-up)
- OEPL by shop order number (two-step look up)
- Master Parts Deck (includes Numerical Index, engine family, accessories)
- Parts Improvement Bulletin (PIB Archival)
- Service Letters (Archival)
- Service Topics (Archival)
- Service Parts Topics (SPT)
- PC Reports (Product/Price Change)
- Superseded/Superseding Reports

B and C Series Filmcard Deck

The B and C Series filmcard system, Bulletin No. 3884240, is customized exclusively for B and C engine repair locations. The deck is split into four sections:

- OEPL by shop order number (two-step look-up)
- Master Parts Deck (Numerical Index, T, Y, Z engine family only)
- PC Reports (Product/Price Change)
- Superseded/Superseding Reports

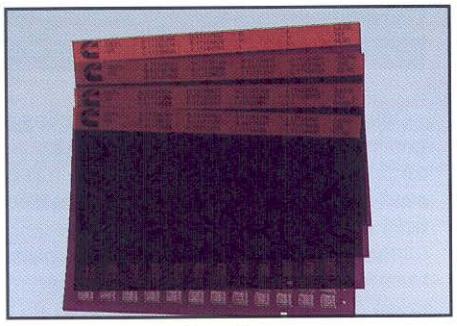
Each of the decks contains specific product information. The access to each deck is a little different. Let's begin by taking a look at the OEPL systems. Please be aware that the best source for locating a part number is the OEPL (Original Engine Parts List).



One-Step Two-Step

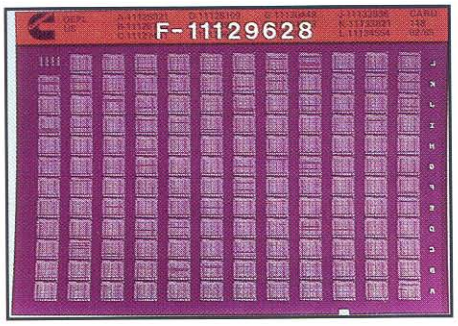
The two OEPL systems are accessed differently. However, both sets of OEPL cards will provide you with a listing of the original engine parts. The first set of OEPL cards we'll call **one-step**. The one-step system covers engines built from 1960 to 1983. The second set of OEPL cards we'll call the **two-step** look-up; it covers engines built after January 1, 1984.

The One-Step Look-Up

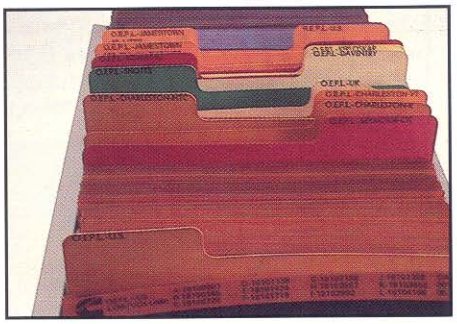


One-Step

The one-step OEPL cards are arranged by Engine Serial Number (ESN).



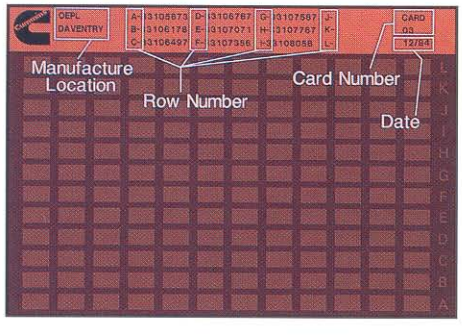
To locate the ESN number, simply scan the tops of the cards. The OEPL cards are color-coded, and are arranged by manufacturing plant location.



Cummins Manufacturing Locations

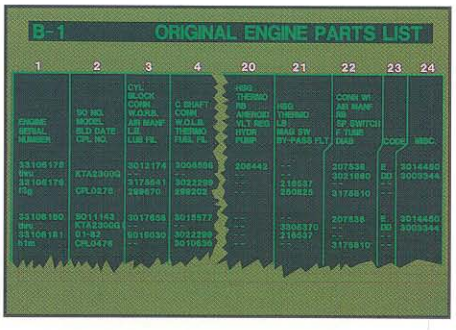
Plant Location	Engine Serial Number used until April 1971	Engine Serial Number Assignment
Columbus	0000000-upward	10200101
Columbus Low Volume		18100001
Charleston (K Series)		31100101
Charleston (NTC)		32100101
Darlington (Vee Series)	(Prefix DO, FO, GO)	20100101
Darlington (B Series)		21000001
Daventry (K Series)		33100101
Shotts (NH Series)	7W0001	23100101
Shotts (L10 Series)		25500001
Komatsu		26100101
Kirloskar (India)	Date H 0001	25100101
Mexico (NH Series)		28100101
Mexico (Vee-378, 504)		24100001
Mexico		43100101
Brazil (NH Series)		30100101
Jamestown (NH Series)		34100101
Jamestown (L10 Series)		34500001
Seymour (Industrial V28, V903)		37100101
Rocky Mount (CDC B, C Series)		44100101
Darlington (B, C Series)		21xxxxxx
Brazil (B, C Series)		304xxxxx
Turkey (BMC B, C Series)		50xxxxxx
ReCon (UK)	RZ 10000	
ReCon (US)		27100101
ReCon (B, C Series)		48xxxxxx

It helps to know the engine's point of origin. This will speed up the serial number look-up process. Please note, the one-step cards are clearly marked in the upper left corner with the origin of manufacture, and in the upper right-hand corner with a card number and its print date. Both are key in locating an ESN number and when replacing a lost or mutilated card. We'll cover reordering practices later in this booklet.

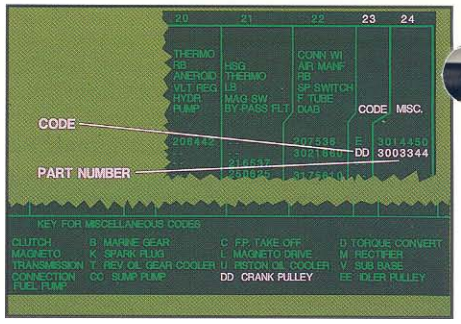


Once you locate the engine serial number and observe the row on which it is located, simply pull the appropriate card from the deck. One-Step cards are divided into 24 columns. Each row is clearly marked. The columns list major parts and assemblies.

Engine Serial numbers are listed individually and in groups, in ascending order down the first or second column. The column next to the ESN number displays the model number.



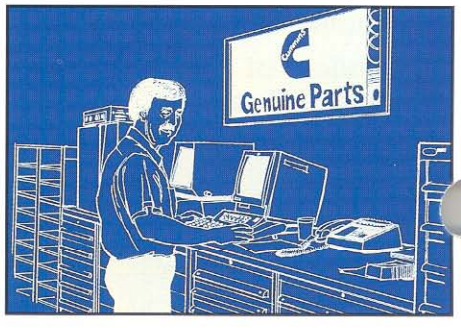
Columns 3-22 list major assemblies and components used to build the engine. They're listed across the top of each page. Dashes in the Part Number field may mean that the part was excluded from the OEPL data for some reason.



Column 23

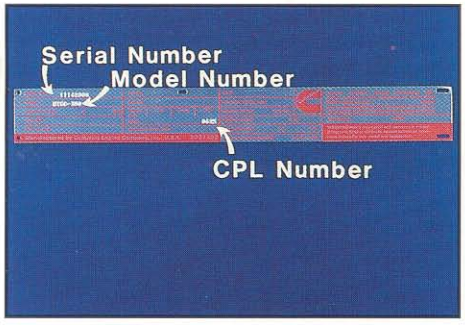
Column 23 displays codes for accessory items. The key for these codes is located across the bottom of the page. The correct part number is located in column 24 adjacent to the code in column 23.

Now that we are more familiar with the One-Step cards, you may want to work through the example that is included on the practice card located in the back of this booklet.



Engine Identifiers

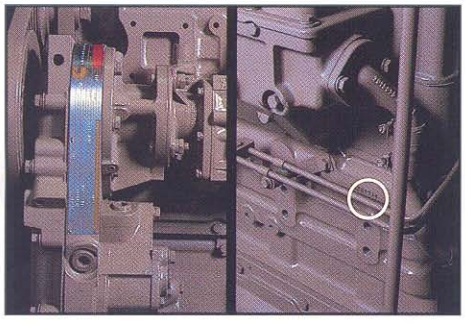
As a rule, it's always a good idea to obtain several engine identifiers from the engine's dataplate or from the ESN stamping on the block.



NH/NT Data Plate

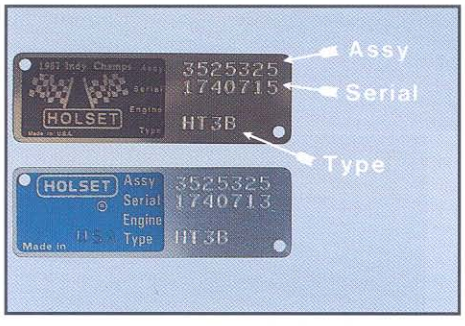
Show the customer where the dataplate is located. For example on an NT, the plate is located on the accessory drive flange. The engine serial number (ESN) is stamped on the fuel pump side of the block at the rear, beneath the number 6 cylinder. Ask the customer to copy the:

- Engine Serial Number (ESN)
- Model Number
- CPL Number (Control Parts List)
- Engine Build Date (Date of Mfg.)



NH/NT Dataplate, block #

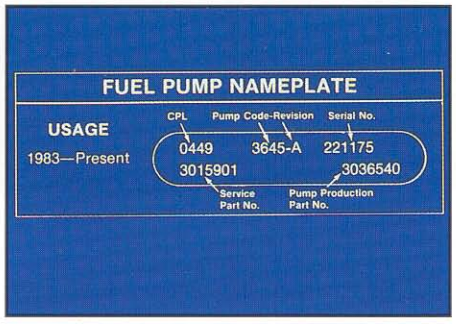
There are other dataplates attached to engine components which are key when trying to locate a Service Part Number. They are the turbocharger and the fuel pump plates.



Cummins/Holset Dataplate

The turbocharger dataplate includes the turbocharger's production/assembly part number. This part number can be used to cross reference a service kit, repair kit or a ReCon Part Number.

Cummins Turbocharger Cross Reference, Bulletin Number 3884216, can also help you locate a service part number from a production part number.

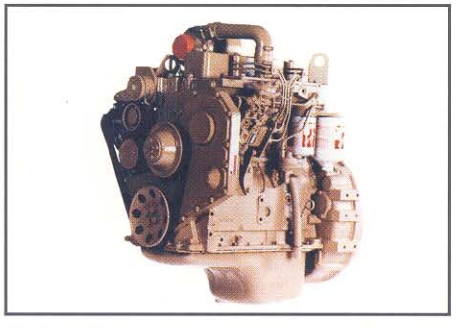


NH/NT Fuel Pump Dataplate

The fuel pump plate is attached directly to the pump. It includes the **Fuel Pump Code** and the engine's **CPL**. To order fuel pump parts, you'll need the CPL, Pump Code, and the Serial Number. The pump plate identifies all the numbers necessary to correctly match component assemblies.

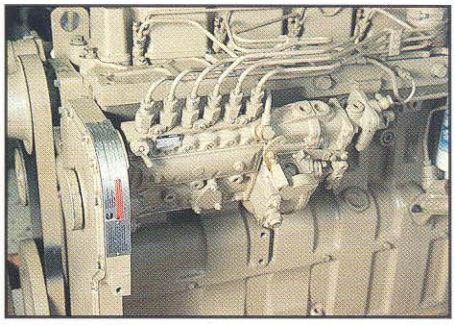
We suggest that your customers log these engine identifiers in the front of his Operation and Maintenance manual, or you may want to supply them with a form which includes his specific identification numbers. The numbers could then be easily stored inside the vehicle for future reference. The following text and art will help you to locate Engine Serial Numbers for the entire Cummins product line.

Cummins Dataplate Locations



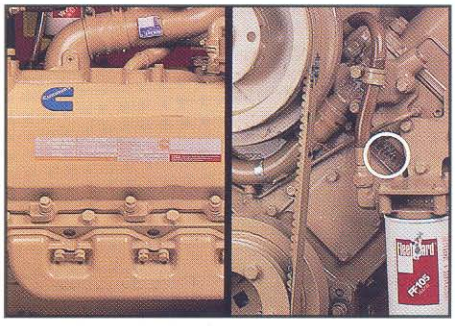
B Series

The dataplate is attached to the front gear cover on the fuel pump side. The **block code** is stamped on the block beneath the water outlet connection. The block code is for factory use only.



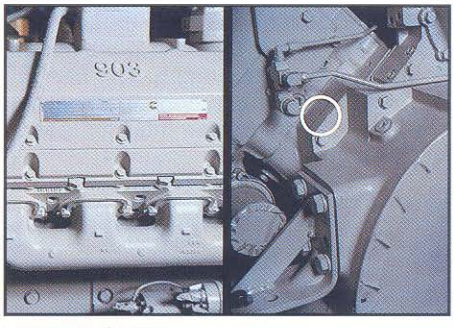
C Series

The dataplate is attached to the front gear cover on the fuel pump side. The block code is stamped on the block behind the fuel pump mounting location. It's important to note that the block code for B and C Series Engines cannot be used in the field to trace ESN numbers. It's for use at the factory only.



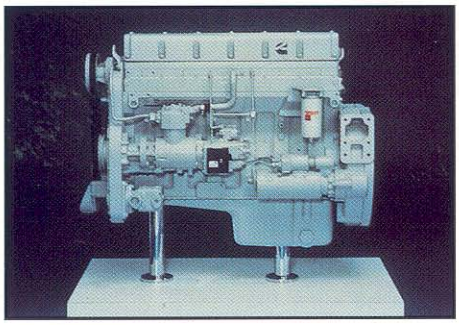
Vee 504, 555 Series

The dataplate is attached to the valve cover at the front of the left bank. The ESN is stamped on a raised boss, on the front left above the pan rail.



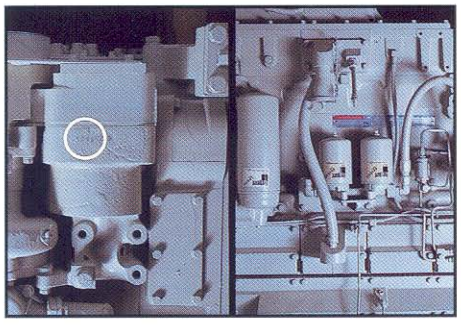
Vee 903 Series

From the rear of the engine, the V903 has two dataplate mounting locations depending on its application. Government dataplates are mounted on the right bank valve cover and construction dataplates are mounted on the left bank valve cover. The ESN is stamped under the left bank cylinder head next to the flywheel housing.



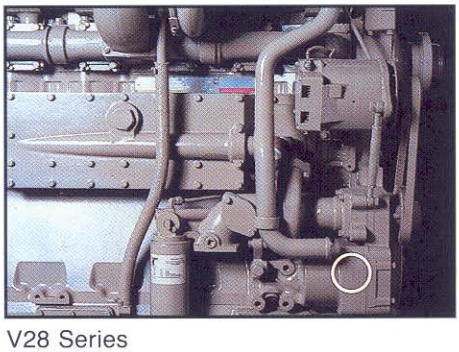
L10 Series

The dataplate is attached to the fuel-pump side of the block, behind the air compressor. However, it may be attached to a high- or low-mount area on the front gear cover. The ESN number is stamped into a boss on the fuel-pump side near the top of number 6 cylinder and is often hidden by a coolant filter.



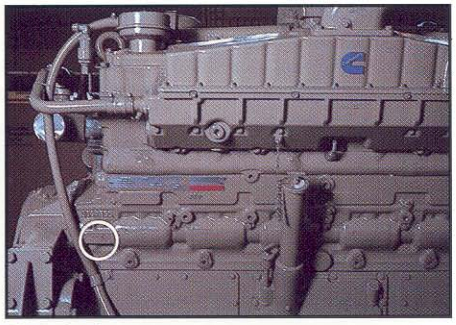
K19 Series Marine

The K19 Series engines have two dataplate mounting locations depending on the application. Marine dataplates are mounted on the fuel pump side directly behind the fuel pump. Construction and G-drive dataplates are mounted to the turbocharger side just under Cylinders 5 and 6. The ESN number is stamped beneath the water pump, directly behind the front gear cover.



V28 Series

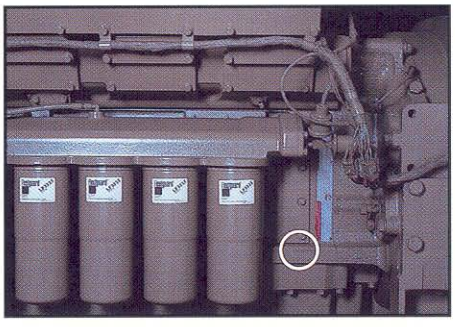
From the front of the engine, the dataplate is attached to the left bank of the block underneath the aftercooler. The ESN number is stamped on the left bank of the block next to the flywheel housing.



K38 Series

The KT38 and 50 have identical dataplate mounting locations. The left and right banks are clearly marked on the block with "LB" and "RB".

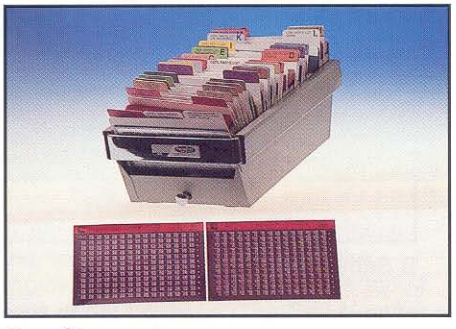
The dataplate is mounted at the rear next to the flywheel housing. The ESN number is stamped on the pan rail, near the rear of the left bank.



K50 Series

Now that we have learned to identify a Cummins engine, let's get back to the business of incorporating the main engine identifiers to use the **Two-Step OEPL** system.

Two-Step OEPL Filmcards

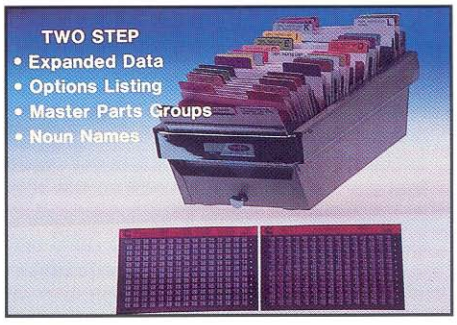


Two-Step system

The Two-Step system records worldwide engine shop order information. The two-step system was first used for engines built after December 31, 1983. The system uses two cards; hence, the name "two-step". The first card type is the Engine Serial Number Index, and second is the OEPL shop order. The cards are sorted and color-coded by manufacturing plant location. The Engine Serial Number Index (ESN) cards are arranged numerically by **ESN** number. The OEPL cards are arranged by shop order numbers.

The Two-Step system operates quite differently from the traditional one-step system. However, the Two-Step system has many added improvements over the earlier designed OEPL deck.

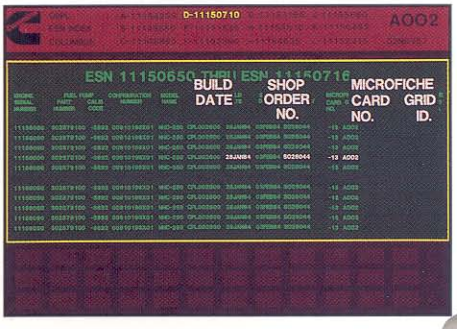
Benefits of Two-Step



- Part numbers arranged by Master Parts Group group
- Access to 220 Part numbers per shop order.
- Provides engine commonality by Shop order
- Option Listing
- Standardized Noun Names

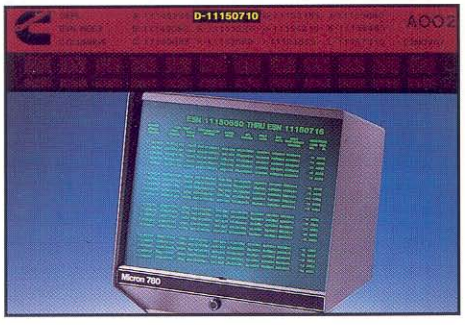
The two-step system greatly increases your part number access. Let's take a brief look at the two-step deck and explore its uniqueness.

The Two-Step deck uses the same ESN number identifier as the One-Step: however, the Two-Step ESN Index Card provides shop order information that must be recorded in order to look up specific OEPL information which is located on the Original Parts List cards. Let's take a close look at the ESN index card. This will help to clarify the procedure for looking up information in the Two-Step deck. The following points describe the features and will familiarize you with the ESN Index Cards.

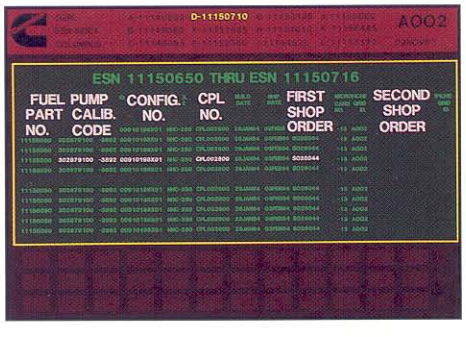


The ESN Index cards are headed with specific engine serial number prefixes arranged by manufacturing location.

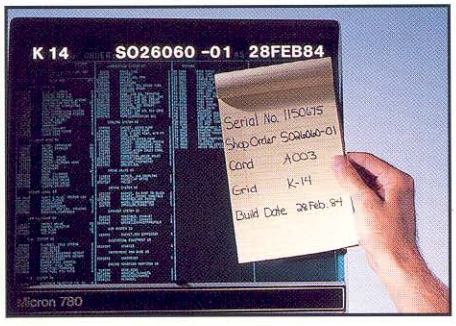
Notice the Serial Numbers are arranged similarly at the top of the card.



- ESN (engine serial number) Index Card includes:
  - a numerical listing of all ESN's by manufacturing plant.
- Index Card Data includes:
  - Engine Serial Number
  - Fuel Pump Number and Calibration Code
  - Engine Configuration Number
  - Model Name
  - CPL Number (Control Parts List)
  - Build and Ship Date
  - Shop Order Number, First, Second and Third
  - Microfiche Card and Grid Location. (This refers to the OEPL Part list card where the original parts list for a specific shop order can be found.



As you can tell from this listing, the two-step deck includes features for exact service part replacement.



When you're looking at the ESN index card, it's essential that you record the Engine Serial Number, Shop Order Number, Microfiche Card (OEPL) number and Grid Location. Remember, the ESN Index Card also provides other important information such as the Fuel Pump Part Number and Calibration Code, Configuration Number, CPL Number and the First and Second Shop Order data.

Once you've located an ESN number on the Engine Serial Number Index Card and recorded the appropriate OEPL look-up information, it's time to locate the appropriate OEPL Parts List Card.

The OEPL Parts list deck contains **shop order information**. The OEPL information is arranged by Master Parts Listing Groups. The following table provides the Master Parts Group breakdown.

Master Parts Groupings

Description	Group
Block Group 01	
Cylinder Block	01.01
Cylinder Liner	01.01.1
Short Block	01.01.4
Crankshaft	01.02
Main Bearings	01.02.1
Vibration Damper	01.02.2
Crankshaft Pulley	01.02.3
Counterbalancer	01.03
Connecting Rods	01.04
Pistons	01.05
Cylinder Kit	01.05.1
Piston Rings	01.05.2
Front Cover	01.06
Rear Cover	01.06
Camshaft and Gear	01.07
Oil Gauge Bracket	01.08
Hand Hole Cover	01.08
Gear Cover	01.09
Gear Housing	01.09
Compression Release	01.10
Cylinder Head 02	
Cylinder Head	02.01
Cylinder Head Gasket Upper Engine Gasket Sets 17.02	02.01.1
Rocker Lever 03	
Rocker Lever and Housing	03.01
Rocker Lever Cover	03.01.1
Cylinder Head Cover	03.01.1
Crankcase Breather	03.02
Cam Follower 04	
Cam Follower Housing	04.01
Lever	04.01
Tappets	04.01
Push Rods	04.02
Fuel Systems 05	**XA Group**
Fuel Pump Standards by Engine Model and Application	
PTG Fuel Pump Tabulation	PTG
PTR Fuel Pump Tabulation	PTR
Fuel Pump Housing	05.01
Governor Plunger	05.01.1
Throttle Shaft	05.01.2
Spring Pack	05.02
Mainshaft Cover	05.03
Tachometer Drive	05.04
Filter Screen	05.05
Safety Controls - (Also Ref. 15.03 in XP Group	05.06
Gear Pump and Damper	05.07
Aneroid	05.08
Pressure Regulator	05.09
Woodward Governor	05.10

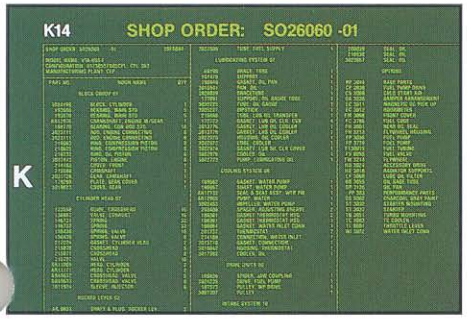
Description	Group
Torque Converter Governor	05.11
Road Speed Governor	05.12
Electro Hydraulic Governor	05.13
Miscellaneous Fuel Pump	05.14
Fuel Pump Conversion Kits	05.15
Natural Gas Fuel System	05.16
PTG VS Fuel Pump	05.17
PTG AFC Fuel Pump	05.18
Fuel Systems 06	
Injectors	06.01
Fuel Connections	06.02
Fuel Crossover	06.03
Fuel Tubing	06.03
Fuel Filter	06.04
Float Tank	06.05
Lubricating System 07	
Oil Pan	07.01
Suction Tube	07.01.1
Dipstick and Tube	07.02
Lubricating Oil Filter	07.03
Hose and Fittings - (Ref. Hose XH Group	07.04
Lubricating Oil Cooler	07.05
Lubricating Oil Pump	07.06
Cooling System 08	
Water Pump and Pulley-(for belts Ref. Belts XB Group	08.01
Fan-(Ref.Fans XF Group	08.02
Fan Hub	08.03
Fan Bracket - (Ref. Fans XF Group	08.04
Fan Spacer - (Ref. Fans XF Group	08.05
Water Manifold	08.06
Thermostat Housing	08.07
Water Connection	08.07.1
Thermostat	08.07.2
Water Filter	08.08
Torque Converter Cooler	08.09
Heat Exchanger	08.10
Sea Water Pump	08.11
Expansion Tank	08.12
Radiator	08.13
Thermal Controls - (Ref. Fans XF Group	08.14
Coolant Hose - (Ref. Hose XH Group	08.15
Drive Units 09	
Fuel Pump Drive	09.01
Compressor Drive	09.01
Generator Drive	09.02
Supercharger Drive	09.02
Drive Pulley	09.03
Water Pump and Alternator Dr. (K-KV Eng.)	09.04
Accessory Drive Support	09.04.1

Description	Group
Intake System 10	
Air Manifold	10.01
Air Intake Connections	10.01.1
Cold Start Equipment	10.02
Air Control Valve	10.03
Air Cleaner	10.04
Air Cleaner Hose - (Ref. Hose XH Group)	10.04.2
Supercharger	10.05
Turbocharger (Ref. XT Group)	10.06
Exhaust Outlet Connections (Ref. XT Group	10.06.1
Exhaust System 11	
Exhaust Manifold	11.01
Flanges and Piping	11.01.1
Mufflers and Silencers	11.02
Air System 12	**XC Group**
Air Compressor-Cummins	12.01
Air Compressor-Bendix Westinghouse	12.02
Air Compressor-Wagner Rotary	12.02
Conversion Kits	12.01.5
Vacuum Pump	12.03
Auxiliary Pump	12.04
Electrical Equipment 13	
Standard Electrical Equipment	13.01
Alternator and Generator	13.02
Delcotron Alternator	13.02.2
Alternator/Generator Mounting	13.02.3
Drive Pulleys	13.03
Adjusting Link and Brackets	13.04
Starting Motor	13.05
Air Starter	13.06
Hydraulic Starter	13.07
Gasoline Starting Engine	13.08
Voltage Regulator	13.09
Magnetic Switches	13.10
Miscellaneous	13.11
Instrument and Gauge 15	**XP Group**
Gauges	15.01
Hourmeter	15.02
Safety Control also ref. 05.06 in XA group	15.03
Casing, Joints, Shafts	15.04
Switches	15.05
Tachometer	15.06
Throttle Control	15.07
Instrument Panel	15.08

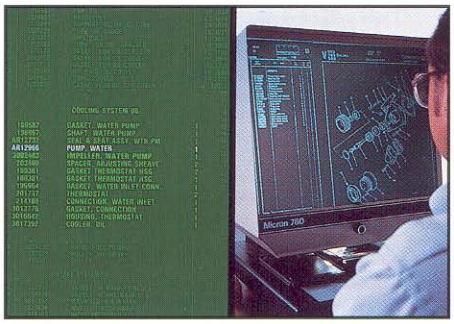
Description	Group
Engine Mounting, Adaptation 16	
Flywheel Housing	16.01
Flywheel and Ring Gear	16.02
Front Engine Support	16.03
Front Power Take Off-(Ref.Clutch XD group)	16.04
Clutch and Reverse Gear (Ref. Clutch X D Group	16.05
Marine Gear - (Ref. Clutch XD Group	16.05
Transmission - (Ref. Clutch XD group)	16.05
Miscellaneous 17	
Engine Gasket Set	17.01
Overhaul Gasket Set	17.01.1
Cylinder Head Gasket Set	17.02
Fuel Pump Gasket Set	17.03
Misc. Gasket Sets	17.04
Belts - (Ref. XB Group)	17.05
Lifting Brackets	17.06
Noise Supersession Kits	17.07
Main Generator 21	**XG Group**
Main Generator	21.01
Control Cabinet	21.02
Controls	21.02.1
Exciter Regulator	21.03
Hardware Section 22	**XM Group**
Ball Bearings	22.01
Bolts	22.02
Capscrews	22.03
Clamps	22.04
Dowels	22.05
Fittings, Pipe and Tube	22.06
Keys	22.07
Nuts	22.08
Pins	22.09
Plugs	22.10
O Rings	22.11
Rivets	22.12
Screws	22.13
Seals	22.14
Spacers	22.15
Studs	22.16
Terminals	22.17
Thread Inserts (Heli Coils)	22.18
Washers	22.19

Now locate the correct OEPL Parts List card and grid location and verify it for specific shop order number and build date. If you're new to parts, the listings are used in the Master Parts Book Deck. Parts Catalogs are also arranged in this format.

This slide shows the OEPL or the specific Shop Order (SO) card.



Scan the OEPL page for the correct Master Parts List grouping that pertains to a specific assembly or part.



Once you've located the Master Parts Grouping, record the part number you need. If the Part Number is not listed on the OEPL Parts List Card, it becomes necessary to refer to the Master Parts Book deck. For complete information on how to use the Two-Step system, please refer to the practice card located in the back of this booklet.

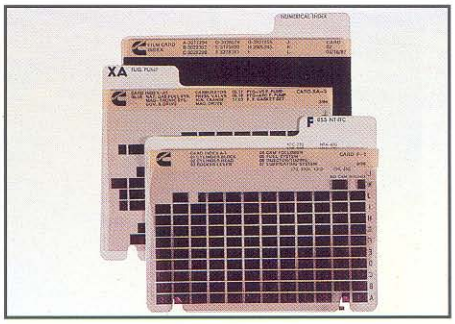
OEPL Filmcard Quality Check

Z Card

All Shop Orders published in Sections A-O have passed the minimum Content Check list. Should a Shop Order not pass the check list, it will be assigned a location on the **"Z" Card**. Once the missing Content is supplied, the Shop Order will be republished on the appropriate OEPL Parts list Card and removed from the "Z" Card.

Master Parts Book Deck

Many dealers tell me they are least familiar with the Master Parts Book deck and the function it provides. So let's talk a little about how you can control the deck to make it your winning hand. We'll begin by learning how to access the Engine Master Parts List numerical index, which is your guide to the Master Parts Book deck.



The Master Parts Book deck is divided into three sections:

- Numerical Index
- Engine Family Parts List (tabs A-Z)
- Accessory Components and Hardware (tabs XA-XT)

We'll begin by discussing the three major sections of the Master Parts Book Deck and tell you how the deck is accessed. It is cracked differently from the two previously discussed OEPL decks. The Master Parts Book Deck is accessed by:

- Part number through the Part Numerical Index
- Engine Family by tab location
- Master Parts Groupings

Remember, we introduced you to the Master Parts groups earlier in this booklet in the form of a table.

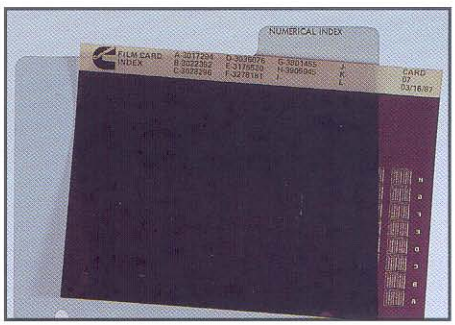
To use the Master Parts book deck, it's absolutely essential that you understand the way the cards are arranged and labeled.

If you can't find an item in the Numerical Index, please refer to the Superseding Report located in the technical information section to find the replacement part number.

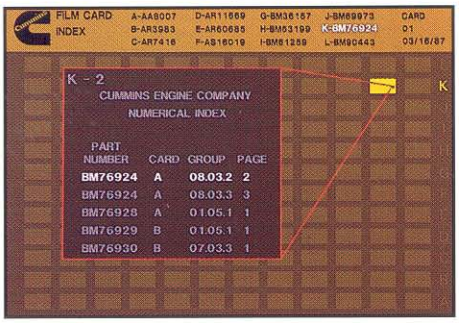
Numerical Index

The Numerical Index includes a complete listing of most Cummins Part Numbers introduced into the Cummins Part Number System.

To use the Numerical Index, simply locate the card which has the part numbers nearest to the number you're looking for.



Numerical Index



The Master Parts Listing Numerical Index Cards are arranged in grid rows just like the OEPL decks. Once you locate the card and grid row nearest to the part number you're looking for, simply insert the card into the filmcard reader and locate the appropriate grid row. The numerical index includes the Cummins Part Number, Engine Family group, Master Parts Group, and page number.

Engine Family

The Engine Family Cards are filed behind tabs A-Z. For example, the F tab includes 855 FFC engine models. Behind these tabs you'll find the parts listed by Master Parts Book grouping. Locate the Master Parts Grouping of the specific item you're looking for. Once you locate the appropriate Master Parts List Group, simply pull that particular card, insert it into the reader and locate the index section for that particular card. The index section is normally located in grid row A, page 1.

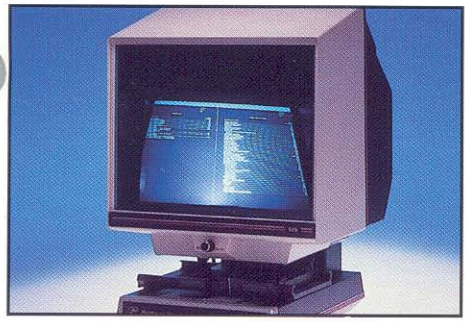
The Master Parts Book Deck table represents the total number of cards included in the Master Parts Book filmcard section.

Master Parts Book Deck

Engine Master Parts List	Microfiche No.	Date
Numerical Index	**0001-00007**	**87-03**
A (C and J Series)	0001-0003	78-12
B (855 NH/NT 5 1/2" bore)	0001-0004	86-02
B (855 NH/NT 5 1/2" bore)	0005	86-06
C (V352/378/470/504)	0001-0002	86-02
C (V352/378/470/504)	0003	86-06
D ((V903/785/588)	0001-0002	82-06
D (V903/785/588)	0003	86-06
E (V/VT/VTA 28 (1710))	001-002	85-10
E (V/VT/VTA 28 (1710))	0003	86-06
F (855 NT-FFC)	0001	87-01
F (855 NT-FFC)	0002	86-09
F (855 NT-FFC)	0003	86-09
G (Super 250,N927)	0001	87-02
G (Super 250, N927)	0002	77-06
H (H/NH/NT 4 7/8",5 1/2")	0001-0005	80-03
I (L10)	0001	84-03
I (L10)	0002	86-06
J (Komatsu Cross-Ref)	0001-0003	79-04
J (Komatsu Cross-Ref)	0004	80-04
J (Komatsu Cross-Ref)	0005	82-08
J (Komatsu Cross-Ref)	0006	85-07
K (KT/KTA 19)	0001	85-07
K (KT/KTA 19)	0002	87-02
KV (KT/KTA 38, 50)	0001-0002	87-02
L (L/LR/LRT)	0001	78-03
M (NVH/VT-12 5 1/8")	0001-0002	78-03
N (V/VT 555)	0001	86-02
N (V/VT 555)	0002	86-06
R (V350/430)	0001	79-04
S (Shotts)	0001-0003	84-07
T (6B/BT/BTA,5.9)	0001	87
W (3B2.9)	0001	87
Y (4B/BT/BTA3.9)	0001	87
Z (6C/CT/CTA 8.3)	0001	87

Accessory Components and Hardware

Components and Hardware	Microfiche Card No.	Date
XA (Fuel Pump)	0001	79-10
XB (Belts)	0001	86-03
XC (Air Compressors)	0001-0002	85-10
XD (Clutch Transmissions)	0001	82-06
XE ((Electrical Equipment)	0001	84-07
XF (Fans)	0001	84-01
XG (Main Generator)	0001	83-10
XH (Hose)	0001	84-07
XM (Hardware	0001	84-07
XP (Gauges and Instruments	0001	
XT (Turbochargers)	0001	86-02

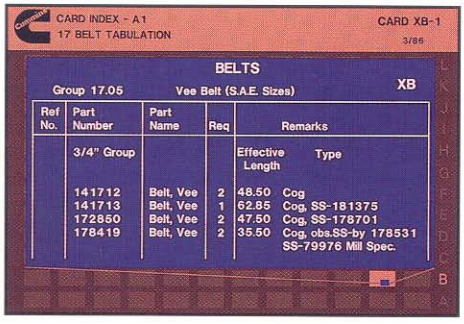


Familiarizing yourself with the structure of the Master Parts Book deck will allow you to follow along with the example located on the practice card at the back of this booklet.

Accessories and Hardware

Accessory Components and Hardware cards are represented by two alpha characters.

These cards are filed behind tabs XA-XT, as shown in the Master Parts Book Deck table. They contain similar parts grouped by noun name for ease of retrieval. For example, belts are tabulated by type and length regardless of engine family. The following picture provides an exploded view of accessory components and hardware Master Parts Book Cards. The cards are accessed in the same way as the engine family cards.


CARD INDEX - A1
17 BELT TABULATION
CARD XB-1
3/86

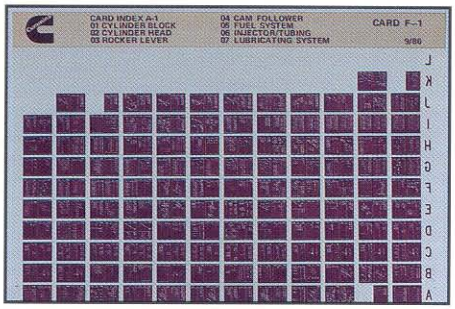
BELTS
Group 17.05 Vee Belt (S.A.E. Sizes) XB

Ref No.	Part Number	Part Name	Req	Remarks
	3/4" Group			Effective Length / Type
	141712	Belt, Vee	2	48.50 Cog
	141713	Belt, Vee	1	62.85 Cog, SS-181375
	172850	Belt, Vee	2	47.50 Cog, SS-178701
	178419	Belt, Vee	2	35.50 Cog, obs.SS-by 178531 SS-79976 Mill Spec.

Once you have located a part number in either the OEPL or the Master Parts deck, it is essential that you check the PC (Product/Price Change) deck to make sure the part number given on the Master Parts card is still current.

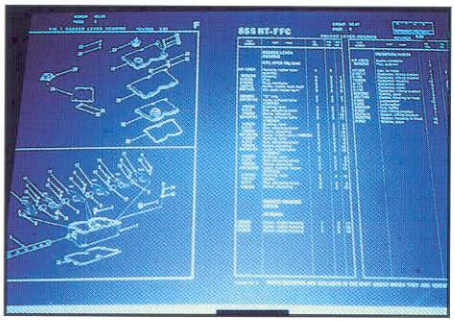
Finding the Correct Part Without an Engine Serial Number

Suppose you only know the engine family for which you're trying to locate a part number. It's tough to be totally accurate without a **part number, engine serial number** or in recent years a **shop order**. But, the Master Parts Book will allow you to look up part numbers in the Engine Family deck. As previously discussed, the engine family deck is divided into groups with alpha-arranged tabs. Since you are now familiar with the master parts groupings, you simply check the header for the appropriate grouping, locate its grid row and search for the appropriate part number.



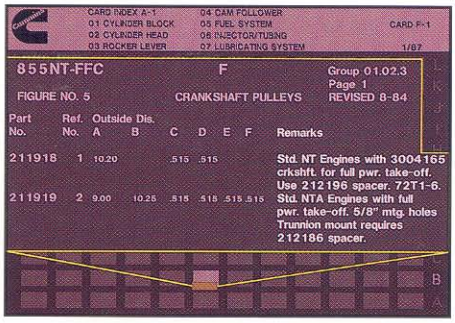
Make sure when you find the appropriate card that you locate the index page in row A and locate the appropriate grid location for the Master Parts grouping. From there you should be able to locate the correct part number.

Locating a part number in this way will provide you with standard components and assemblies only. Therefore, it will be necessary for you to reference the accompanying piece of line art of the assembly breakdown. This will help you to locate the correct part or assembly. It is then necessary to check the part number you find and compare it with the PC deck to be sure the number is current.



For examples on how to use the entire Cummins deck, please consult the practice cards located at the back of this booklet. If you work the counter and are responsible for using and maintaining the Cummins filmcard decks, we suggest you keep the practice cards handy. New people to the counter will really appreciate these easy-to-use familiarization tools.

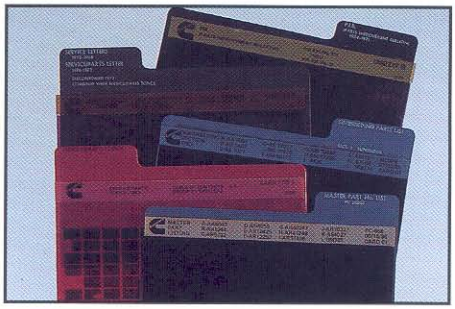
A number of supportive documents are referenced in the remarks column on the Master Parts Book Cards.


CARD INDEX A-1
01 CYLINDER BLOCK
02 CYLINDER HEAD
03 ROCKER LEVER
04 CAM FOLLOWER
05 FUEL SYSTEM
06 INJECTOR/TUBING
07 LUBRICATING SYSTEM
CARD F-1
1/87

855NT-FFC F
Group 01.02.3
Page 1
REVISED 8-84
FIGURE NO. 5 CRANKSHAFT PULLEYS

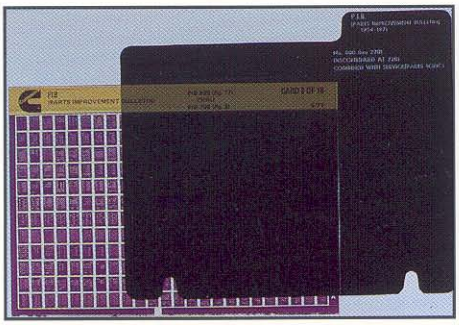
Part No.	Ref. No.	Outside Dia. A	B	C	D	E	F	Remarks
211918	1	10.20		.515	.515			Std. NT Engines with 3004165 crkshft. for full pwr. take-off. Use 212196 spacer. 72T1-6.
211919	2	9.00	10.25	.515	.515	.515	.515	Std. NTA Engines with full pwr. take-off. 5/8" mtg. holes Trunnion mount requires 212186 spacer.

Master Parts Book Deck Technical Information

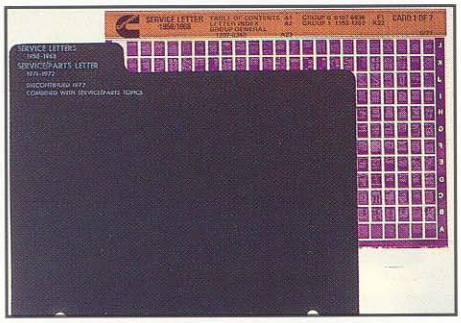


Other sections include:

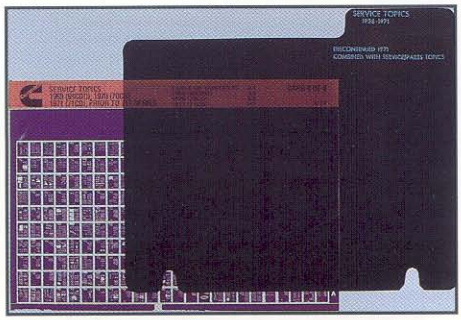
- Parts Improvement Bulletins (Archival)
- Service Letters (Archival)
- Service Topics (Archival)
- Service/Parts Topics
- PC Reports (Product Change includes pricing info.)
- Superseding Parts List



PIB – Parts Improvement Bulletins used until 1971 and combined with Service Topics to that year.



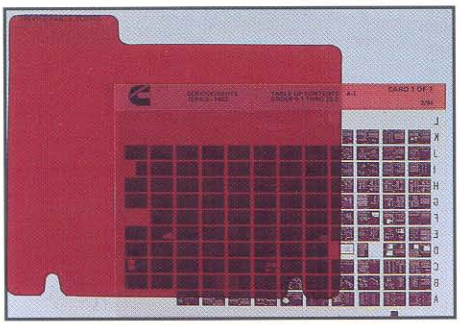
Service Letters – Letters and Service Parts Topics 1971-1972.



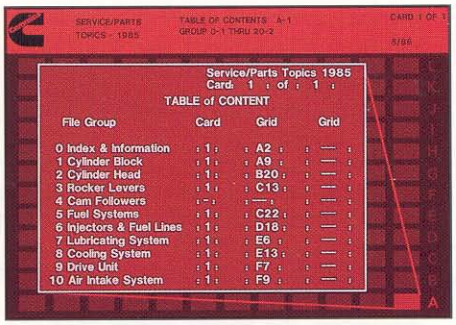
Service Topics – Combined Topics from 1958 discontinued 1971.

All three PIB's, Service Letters and Service Topics are archival and in 1973 were replaced with Service Parts Topics (SPT).

Service Parts Topics



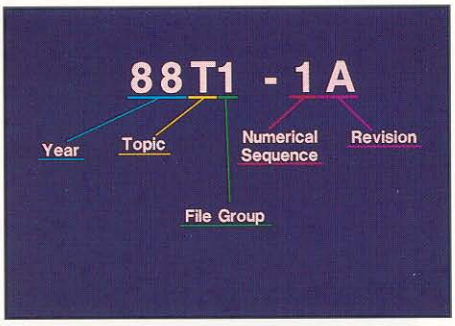
Service/Parts Topics
Published once a year on filmcard



Are arranged by Master Parts Groupings

Are organized by Year and Indexed

Paper copies of Service Parts Topics are issued quarterly and are designed to supplement Operation and Maintenance Manuals, Parts Catalogs and all other Service and Parts publications. Topics also support new product introductions and provide field-fix service information to Cummins Distributors, Dealers and Fleets. These are released on filmcard once a year.

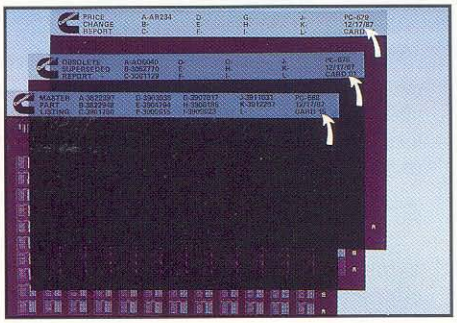


Service Parts Topics are coded. For example, in SPT 88T1-1, the ''88'' indicates the year in which the topic was published. The ''1'' calls out the Master Parts Group. (Ref: 1 indicates the Block Group) And, the last ''1'' indicates the numerical sequence.

Service Parts Topics may be revised and/or replaced within the same year, due to a product change and/or UPRATE. If a revision occurs, an alpha character will be used to indicate the revision. For example, in 88T1-1A, the ''A'' represents the revision. In case of revision, the topic will often instruct you to remove the old topic and replace it with the second revision. Remember, access to the present and archival records is provided by the comments column on the Master Parts Book Cards.

PC Reports

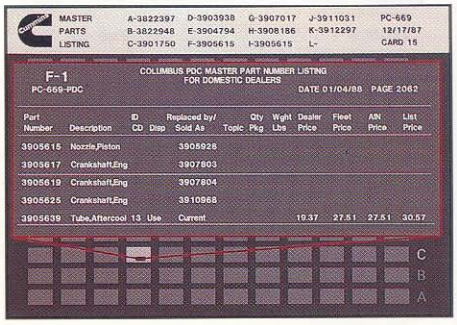
Price Change reports are published monthly. When you receive your current ''PC'' deck you should remove the outdated cards from your deck and replace them with the new mailpack.



PC 669 – Master Parts Listing references all service parts in the current Cummins Parts Number system.

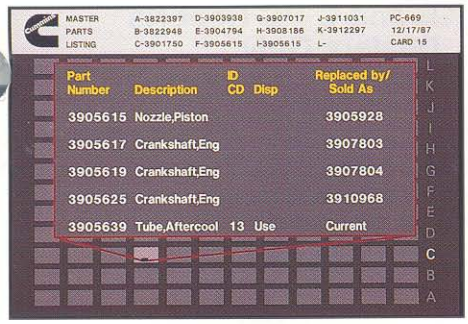
PC 675 – Obsolete Superseded references all service parts which have been obsoleted or superseded from the previous month.

PC 679 – Price Change references all prices which changed from the previous month.



PC Card 669 Price Change Report

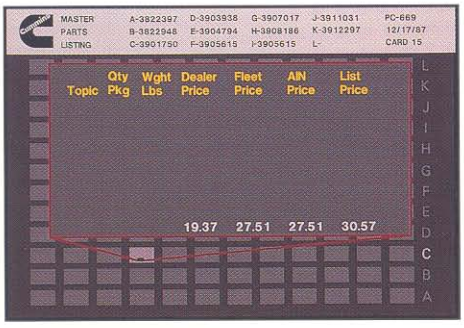
This slide shows an exploded view of ''PC'' card 669 which is the Columbus PDC (Parts Distribution Center) Master Parts Listing for domestic dealers. The International **PC** card No. PC 673 reflects International suggested resale pricing rather than U.S. suggested resale prices. The PC card reflects the status of service part numbers currently listed on the active Cummins database.



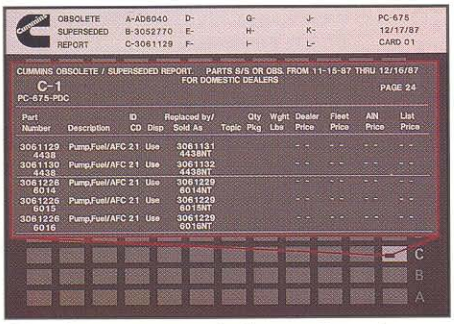
From the left, the first two columns are fairly self explanatory. They list part numbers and their descriptions. Column three lists the **ID** (Identification) code. This code identifies the type of part or assembly.

ID Code	Description
10	Finished Part
13	Permanent Assembly
15	Finished Part
16	Engineering Assembly
17	Component Assembly
21	Assembly or Kit

The fourth column, **DISP** (Disposition) Code, indicates whether a part on the shelf should be used before replacing with new inventory. The fifth column, **Replaced By/Sold As**, describes whether or not the part number is current, not replaced, or provides the replacement part number.

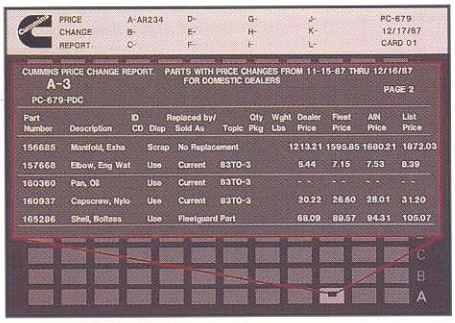


The PC card also includes information reference sources, quantity packs and suggested resale pricing.



Obsolete superseded report card no. PC 675

Obsolete Superseded reports are published monthly as part of the **PC Reports**. The Obsolete "PC" 675 card provides all current database part numbers that have been obsoleted or superseded from the date of the last report. The obsolete/Superseded "PC" card 675 provides suggested resale pricing for domestic markets only.

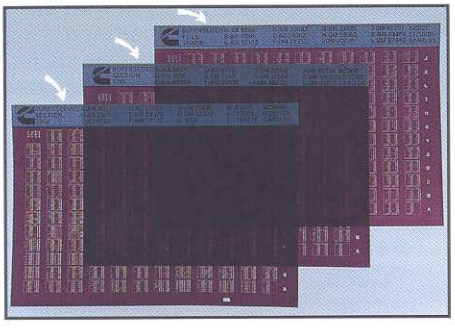


PC Card 679 Price Change Report

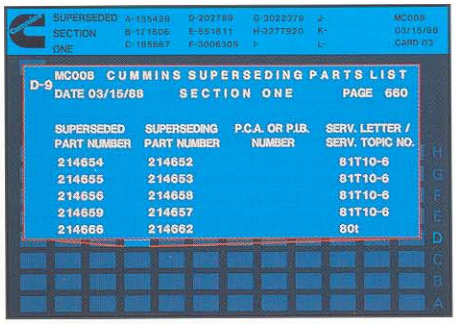
The **Price Change Report** reflects the part numbers which have had suggested resale price changes from the previous month.

Cummins recommends you remove PC cards from your deck each month and replace them with the latest ones provided in your monthly mail pack.

Superseding Parts List

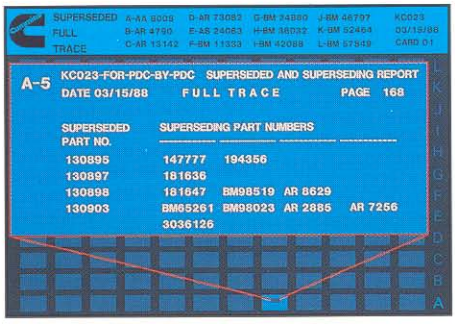


The superseding Parts list contains three different styles of supersession cards.



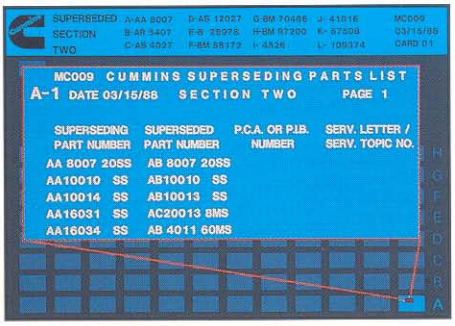
Superseded Section 1/Report Number MC008

The **Superseded Section 1** cards depict a one-step supersession and includes references to PIB's and SPT's.



Superseded Full Trace/Report Number KC023

The **Superseded Full Trace** cards depict full-chain forward from the first service part number.



Superseding Section 2/Report Number MC009.

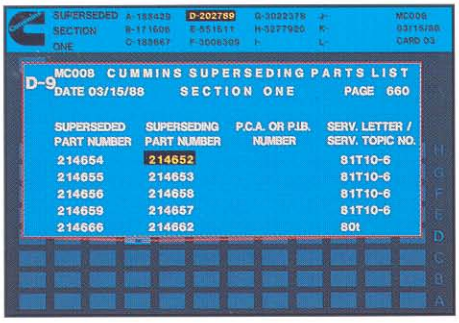
The **Superseding Section 2** cards depict the most current replacement service part number to the first service part number backward.

A service part which supersedes another part may differ in:

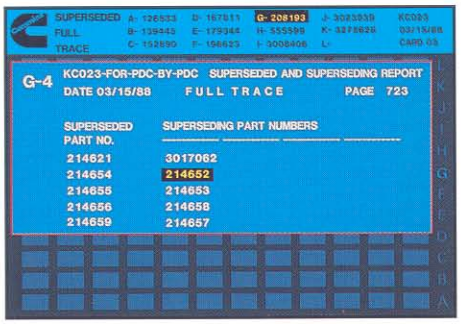
- Form
- Fit
- Function

For these reasons, when replacing an OEPL part that is not available, Cummins recommends repairing with a later design.

Example: Superseded Section 1



The **Superseded Section 1** cards provide you with one step of the supersession chain. The service part number in the superseded column is the number which is being replaced. The service part number in the superseding column is the part number which directly replaced the superseded part number. This may not, however, be the end of the supersession chain. It then becomes necessary to replace the superseding number which directly replaced the superseded part number. To validate the superseding number, use the **Superseded Full-Trace** card to check for the the most current saleable part number.



B and C Supersession Cards

B and C supersession cards will soon be available from Cummins Engine Company. The B and C cards will contain B and C Series service part number information only. Cummins will offer its B and C Dealers this option without having to purchase the total Cummins Filmcard system. This is for the convenience of our valued dealer network.

The B and C cards will include:

- Superseded Section 1/Report Number KC149 (One-step supersession)
- Superseded Full Trace/Report Number KC151 (Full-chain forward from first part number)
- Superseding Section 2/Report Number KC150 (Most current replacement service part number to the first part number in the chain backward)

Parts Ordering Information

The Cummins filmcard system supports more than 34,000 Archival part numbers. Supersessions that occur within the Cummins Part number system are due to a change in the:

- Service Structure level
- Universal service design
- Engineering which causes a modification to form, fit or function

Knowing this you can begin to understand why Cummins must revise Parts and Service information on a monthly basis. Most Part Number changes represent added technology or durability for the Cummins Product Line.

The Cummins Filmcard system represents your key to the Cummins Part number system. To order a Cummins filmcard system, you should contact your closest Cummins Distributor. Each order includes:

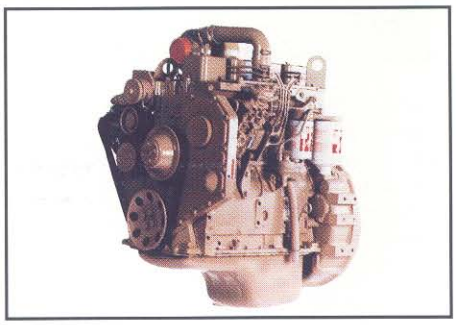
The Cummins filmcard system contains the same basic set of information for all customers except those who only need B and C Series engine information. PC (Product/Price Change) reports vary, depending on whether you are a Domestic Distributor, Dealer, Service Center or are Canadian, International or no price category. The following table provides you with the appropriate PC Card Report number so that you receive appropriate cards for your location. Keep in mind your order must be placed through your local Cummins Distributor.

PC Report Number

Report Number	Price Catagory
PC668	Dom. Dist.
PC669	Dom. Dealer
PC670	Dom. Serv. Ctr.
PC668	Can. Dist.
PC673	Int'l. Dist.
PC691	No Prices

B and C PC Reports Dealers Only

Report Number	Domestic Dealer
KD 148	Master Parts Listing
KD 146	Obsolete/Superseded
KD 147	Price Change



Cummins will offer OEPL and Master Parts Book filmcard deck information for B and C Series dealers.

The Cummins filmcard system includes the following:

Cummins Filmcard System

Bulletin Number	Description	Price	Comments
3379640	Cummins 42X System (All Engine Families)	$525.00	
Content:	A. Complete set of cards B. Trays & Index guides C. Instruction Booklet (Multi-Language for International) D. Updates for Remainder of year		
3379636	Annual Subscription Service	$175.00	billed each February
3379640-X	42X Replacement Card Set (Does not include Monthly updates)	$300.00	All Engines
3379640-R	42X Replacement Card .. Instructions for ordering 3379640-R Replacement Filmcards. ... The order must read: 3379640-R Replacement Card Card number and description of specific card needed. (The description is listed on the index guide at the beginning of each section.)	$ 2.00	All Engines
3379643	File Tray	$ 85.00	42X System
3379644	Easel, Binder	$ 10.00	150X
3379645	Storage Panels	$ 5.00	150X
3379646	Index Guides	$ 29.45	42X Tray System (3379640)
3379573	Instructional Booklet 42X System	$ 1.50	All Engines
3379677	Instructional Booklet 42X System (Multi-Lingual)	$ 1.00	All Engines

B and C Cummins Filmcard System

3884240	Cummins B and C 42X System	$100.00	
Content:	A. Complete set of B & C Series Engine Cards B. Tray & Index Guides C. Instruction Booklet D. Updates for Remainder of year		
3884241	Annual B and C Subscription Service	$100.00	
3884242	B and C Replacement Card set does not include Monthly updates	$	
3884243	B and C Index Guides	$	
3884244	B and C Replacement Cards	$ 2.00	
3884245	B and C Microfilm file tray	$	

What's New For Parts Publications

Sixteen new Parts Catalogs have been released since the last Parts Professional. In addition, Parts Publications offers two revisions of the C Brake and the KT/KTTA Generator Drive manuals. New for 1988 is the 315E which provides a detailed look at the Cummins Electronically Controlled Injector.

With the release of nine new 4B and 6B Application Specific Catalogs (see the Attached Chart for Bulletin Numbers), Cummins will discontinue Bulletin Numbers 3822007 and 3822008. Information previously contained in the two discontinued catalogs has been updated and included in the Master Parts Book Filmcard.

A major effort is underway in the Parts Publications department to update the Master Parts Book. The "XT," Turbocharger Section has been revised and was issued with the February deck of PC Reports. Also available in March is a specialized deck for B and C Series dealers. The deck includes:

- OEPL
- Master Parts Book (Numerical Index, Family Cards T, Y and Z)
- PC Reports
- Superseded/Superseding

The Cummins Filmcard System table located in this publication provides necessary ordering information.

Latest Parts Catalogs

Application	Bulletin Numbers
New	
NTC-315E	3884224
NT,NTA-855-G	3884221
NT-855M	3884203
NTA-855G(M)	3884204
PMG Generator and Control Panel	3884218
C Brake	3822028-02
KT, KTA Construction	3884227
KT, KTA Generator Drive	3379559-02
L-10 Construction	
4B, 4BT3.9 Marine	3822100
4B, 4BT3.9 Generator Drive	3884223
4B, 4BT, 4BTA3.9 Construction	3884232
4BT3.9 Automotive Ford	3884225
4BT3.9 Automotive GM	3884226
6BT5.9 Marine	3882219
6BTA5.9 Marine	3884228
6B, 6BT5.9 Generator Drive	3884220
6B, 6BT, 6BTA5.9 Construction	3884222

Complete form below only if new enrollee or address/employment change

Parts Professional Accreditation Exam Instructions

1. Complete the examination, make sure to check only one answer PER question in the ( ) provided.
2. Please be sure to fill in your Name, State and SS/INS No. at the top of the exam form. This will assure proper credit and save grading time.
3. If you are enrolling for the first time or you have had a change of address or employment fill in the mail list information in the boxes below. Keep yourself current on the mail list.
4. Return exams 7 and 8 by June 1, 1988 and earn a 10 pack "Igloo" cooler.

For factory use only.

Dist. Code **Dealer Code** **OEM**

Your Name

Social Security/ Ins. Number Title

Home Address

City

State/Province/Country Zip/PC

Employed By

Address

City

State/Province/Country Zip/PC

Cummins Headquarter Distributor

Address

City

State/Province/Country Zip/PC

Detach here, fold and seal to mail.

Parts Professional Booklets

( ) Please send me booklets 2-4. I understand that these are for extra reading only. Quiz 2-4 will no longer be graded.
( ) I did not receive booklet no. 7. Please send me a copy.

Check who you are employed by:
( ) Cummins Engine Company
( ) Cummins Engine Distributor
( ) Authorized Cummins Dealer
( ) Authorized Cummins Service Center
( ) OEM (specify) _____
( ) Other (specify _____

Turn Page, Begin Test

Name _____ State_____

Soc. Sec/INS ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Part Professional Test #8

1. The OEPL by Shop Order number (Two-Step) cards cover engines built after January 1, 1984.
   A. ( ) True
   B. ( ) False

2. The Master Parts Book Deck is accessed by:
   A. ( ) Part number through the Part Numerical Index
   B. ( ) Engine Family by tab location
   C. ( ) Master Parts Groupings
   D. ( ) All of the above

3. The V903 series engines have two dataplate mounting locations depending on the application.
   A. ( ) True
   B. ( ) False

4. Which of the following is included in the B and C series film card system?
   A. ( ) OEPL by engine serial number
   B. ( ) Service Parts Topics
   C. ( ) OEPL by shop order number
   D. ( ) None of the above

5. The one-step OEPL cards are arranged by:
   A. ( ) Shop Order number
   B. ( ) Engine Serial Number
   C. ( ) Engine build date
   D. ( ) None of the above

6. The PC675 report references all service parts which have been obsoleted or superseded _____ .
   A. ( ) from the previous year
   B. ( ) ever
   C. ( ) from the previous month
   D. ( ) from the previous quarter

7. The Superseding Parts List contains:
   A. ( ) Superseded Section 1 cards
   B. ( ) Superseded Full Trace cards
   C. ( ) Superseding Section 2 cards
   D. ( ) All of the above

8. Accessory Components and Hardware cards are represented by:
   A. ( ) a number followed by an alpha character
   B. ( ) different colors
   C. ( ) two alpha characters
   D. ( ) a two digit number

9. Which of the following is not included in the Numerical Index?
   A. ( ) Cummins Part Numbers
   B. ( ) Shop Order number
   C. ( ) Engine Family Group
   D. ( ) Master Parts Group

10. Finding the correct part without an Engine Serial Number may not be as accurate as when you have the Engine Serial Number.
    A. ( ) True
    B. ( ) False

11. The 24 columns on the One-step cards list:
    A. ( ) Manufacturing locations
    B. ( ) Shop order numbers
    C. ( ) Major Parts and assemblies
    D. ( ) Engine Serial Numbers

12. If you cannot find an item in the Master Parts Book Numerical Index, refer to the:
    A. ( ) Two-Step OEPL cards
    B. ( ) Price Change reports
    C. ( ) Superseding report
    D. ( ) "Z" cards

13. The Two-Step system offers access to 220 Part Numbers per Shop order.
    A. ( ) True
    B. ( ) False

14. The parts on the cards filed behind the Engine Family tabs are arranged by Master Parts Book grouping.
    A. ( ) True
    B. ( ) False

Detach here, fold and seal to mail.

Please return Tests 7 and 8

Name _____ State _____

Soc. Sec/INS ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

15. Service Parts Topics are published on filmcards:

    A. ( ) twice a year

    B. ( ) quarterly

    C. ( ) every other year

    D. ( ) once a year

16. In the Two-Step system, the OEPL information is arranged by Master Parts Group Breakdown.

    A. ( ) True

    B. ( ) False

17. The two types of cards in the Two-Step system are the Engine Serial Number index and the Major Parts and Assemblies cards.

    A. ( ) True

    B. ( ) False

18. The Dataplate on NH/NT engines is located on:

    A. ( ) the pan rail

    B. ( ) the front gear cover on the fuel pump side

    C. ( ) the accessory drive flange

    D. ( ) None of the above

19. When you are looking at the ESN index card in the Two-Step system, you need to record:

    A. ( ) the Engine Serial Number

    B. ( ) the Shop Order Number

    C. ( ) the OEPL microfiche card number and grid location

    D. ( ) All of the above

20. Which of the following technical information sections in the Master Parts Book Deck is/are archival?

    A. ( ) Service topics

    B. ( ) Parts Improvement Bulletin

    C. ( ) Service Letters

    D. ( ) All of the above

21. B and C series Supersession cards will be available from Cummins Engine Company.

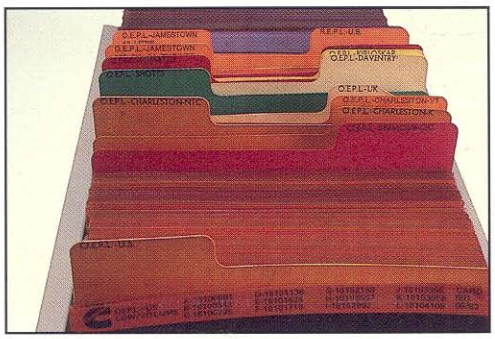
    A. ( ) True

    B. ( ) False

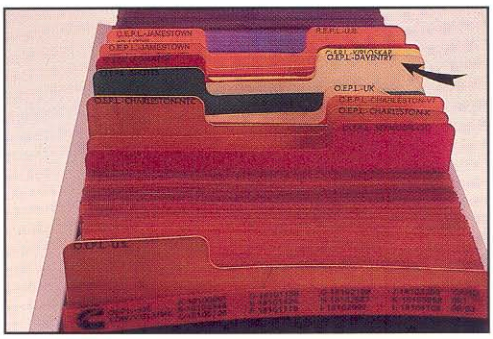
3 by June 1, 1988 to receive your "Igloo" cooler.

One-Step OEPL Example

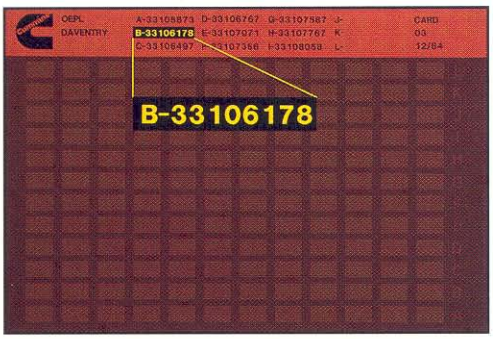
Assume you have the Engine Serial Number (ESN) 33106178, and you need to find the Part Number of the Water Pump.



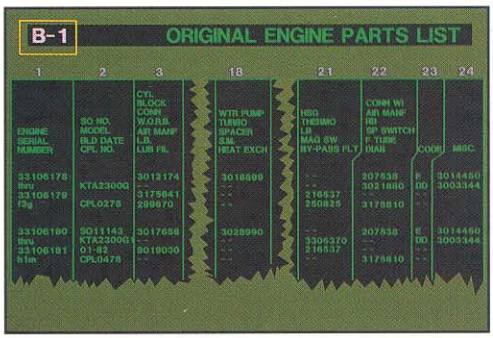
You also know that the engine was built in Daventry before 1984. This will direct you to the Daventry section in the One-Step OEPL deck.



Go to the card that has the number closest to that ESN number in the header in the Daventry section. In this case, it is Card 3.



When you pull this card, note the row the number is in and place the card in the reader. Go to the correct row. In this case, it is Row B.



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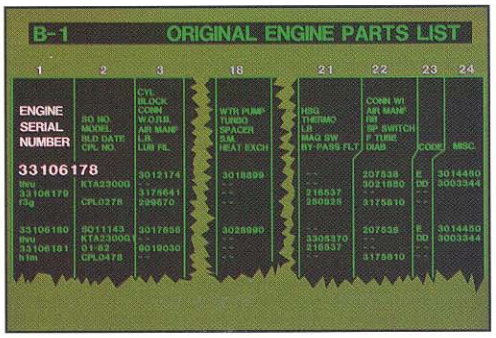
Columbus, Indiana 47202-3005

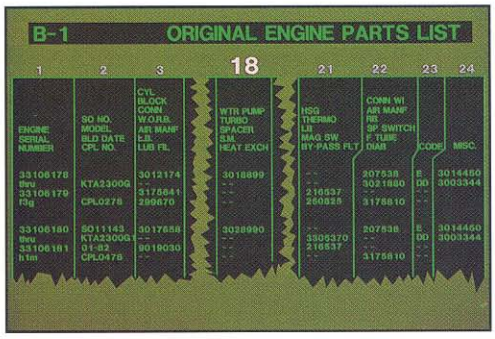
Bulletin # 3385581
Printed in USA 3/88

One-Step Example Continued

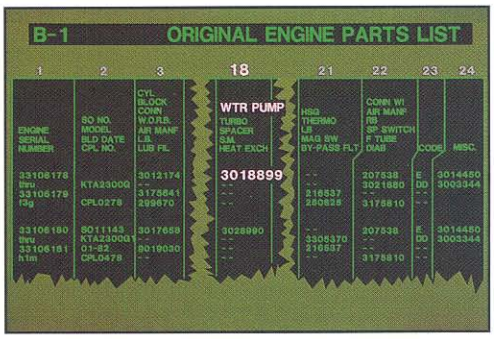
Once you are in the correct row, search for the page the ESN is on. In our example, it is at the top of the first page.



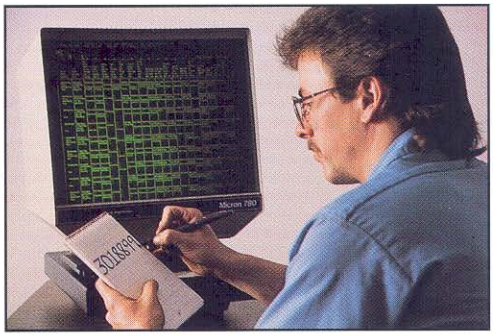
Look for the column which lists Water Pumps across the top of the page. You will find the Water Pump listed in Column 18.



Below the column header, you can find the the Part Number which corresponds to the Water Pump listing in the header. In this case, it is 3018899.



Write this number down and proceed to check it for supersessions and suggested retail price changes. An example of this process can be found on the reverse side of the "Using the Engine Family Cards" example.



Two-Step OEPL

This fold-out is designed to assist you with the essentials for filing and using the TWO-STEP system. The TWO-STEP system utilizes two cards, the ENGINE SERIAL NUMBER CARDS and the ORIGINAL ENGINE PARTS LIST CARDS. This new way of organizing parts information requires you to know the engine's serial number and to acquire and then record the Shop Order Number. The OEPL then becomes Shop Order Driven. Many engine serial numbers may be built to the same shop order. The Two-Step system provides more information and is easier to access once you get used to the process.

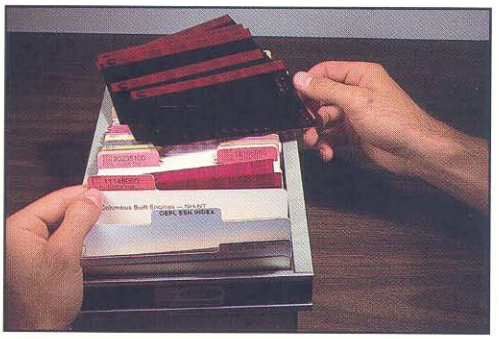
The TWO-STEP system does not obsolete the OEPL you already own. You will need to maintain and use both the OEPL and the TWO-STEP systems. The TWO-STEP system is current for engines built after Dec. 31, 1984 and the original OEPL cards for engines built prior to this date. Both systems require the use of the MASTER PARTS CARDS when a part or an assembly number cannot be located using the Original Engine Parts List Cards (OEPL).

It is recommended you keep this pamphlet in your work area as a quick reference to the Two-Step OEPL system.

The OEPL is a segment of the total Cummins microfilm system and lists the major assembly parts for engines built during the 1960's through December 31, 1983.

Cummins recently improved the OEPL system. The The "Two-Step" system utilizes two cards an ESN Index Card and an OEPL Parts List Card.

The Two-Step system records worldwide shop order information. Please file these two groups or cards behind their respective color coded index tabs; and file them separately from the pre-1983 OEPL system.



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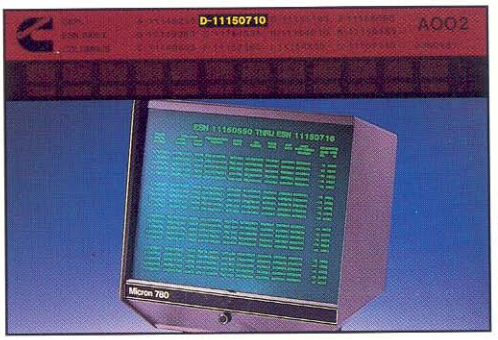
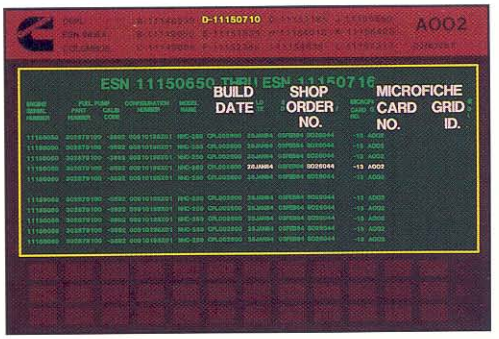
Columbus, Indiana 47202-3005

Bulletin No. 338582
Printed In USA 3/88

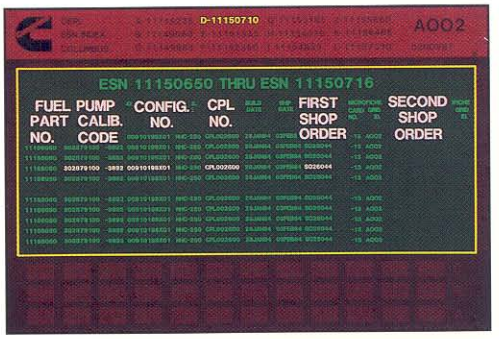
The ESN index cards are headed with specific engine serial number prefixes, which are associated to specific grid rows. The grid rows are your access to an engine's shop order number.



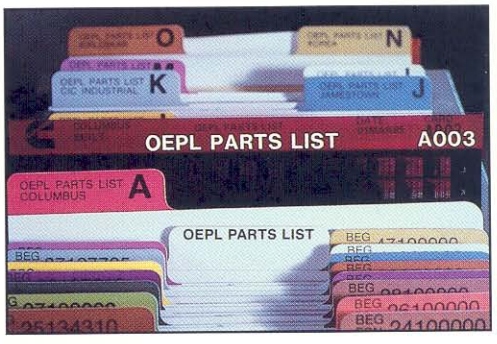
First locate an engine's serial number on the ESN Card and record the Shop Order Number, Build Date and OEPL Microfiche Card and Grid location.



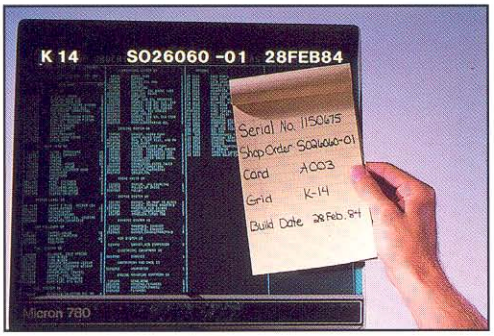
The ESN cards provide expanded data. Record all necessary information and return the card to the ESN file.



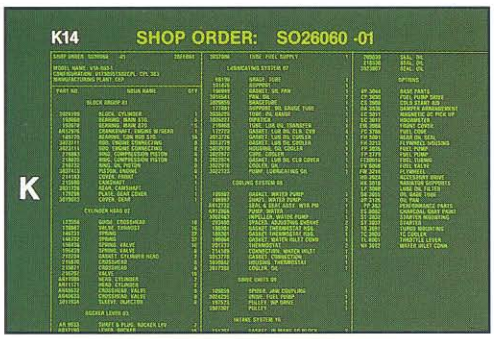
Now, locate the correct OEPL card and grid location for a specific shop order number.



Verify the Shop Order and the build date by checking the OEPL Page header against the information which you recorded.

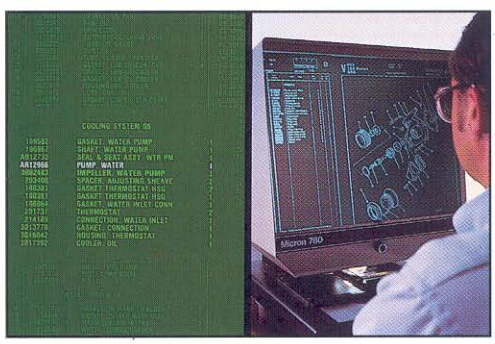


Scan the OEPL page for the correct master parts list grouping that pertains to a specific assembly or part.



Once you've located the master parts grouping, record the part number you need.

If the number is not listed, record the assembly number. Then proceed to the Engine Master Parts List cards to break down the assembly. The explosion will identify the specific part number.



Practice using the Two-Step Cards. There's an exercise for you below.

Exercise

Engine Serial Number Index Cards

1. Record the fuel pump part number and calibration code for Engine Serial Number 11278602_____,also record the control parts list (CPL) number_____.

2. Locate Engine Serial Number 33109478, record the ESN Index Card Number and its grid location_____, record the Build Date_____, and determine if the engine has a Second Shop Order revision,_____.

3. Record the Shop Order Number,_____, Revision Number,_____, Microfiche card and Grid Location,_____ and the Build Date,_____ for ESN 11278607.

OEPL/Original Engine Parts List

1. Record the Turbocharger part number for ESN 11253654_____.

2. Record the Piston Part Number_____, and the injector part number _____ for ESN 11278640.

PC/Price Change

1. Record the Flywheel Housing Part number,_____ and the Fleet price _____ for ESN 11278602.

Superseding

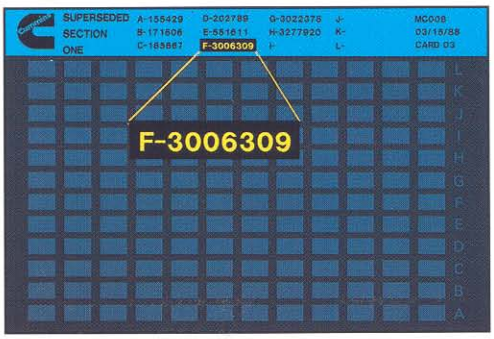
1. Determine if part number 181094 has been superseded _____, if it is superseded, record the current part number _____.

Master Parts Listing

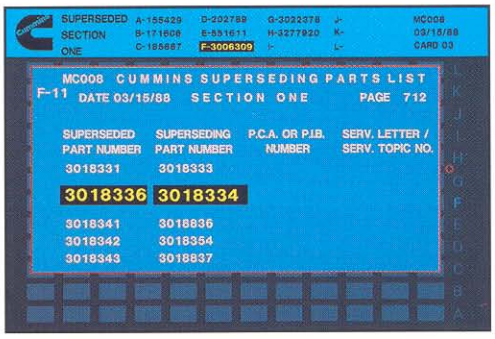
1. Record the Water Pump Part number for ESN 11150675_____, proceed to the Master Parts Cards and record the Water Pump Impeller number_____.

Checking for Supersessions

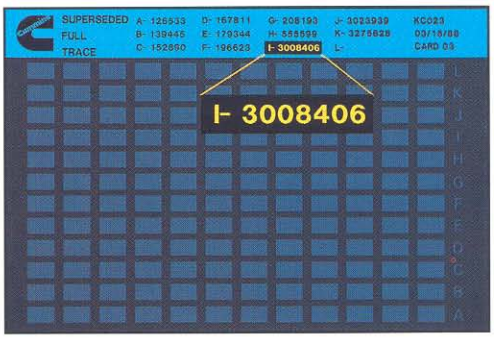
In the Superseded Section I cards, find the card with the Part Number closest to 3018336 in the header. In this case, it is on Card 3. The row we will look at is Row F.



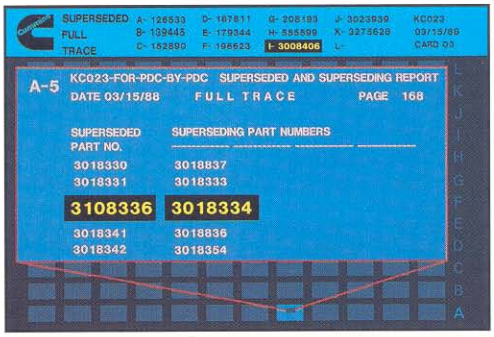
Locate the Part Number by scanning across the row. In this case, 3018336 is in F-11. The number is in the first column of this page. The superseding number is listed as 3018334. Now we need to check the Superseded Full Trace cards to verify this is the latest number.



In the Superseded Full Trace cards, locate the number closest to the SUPERSEDED Part Number (3018336). In this case, it is in the header of Card 03 and can be found in Row I.



Locate 3018336 in the Superseded column by scanning across the row. In this case, it is in the first column of I-10. Since the only number is 3018334, we know it is the latest supersession as of the print date located above the first column.



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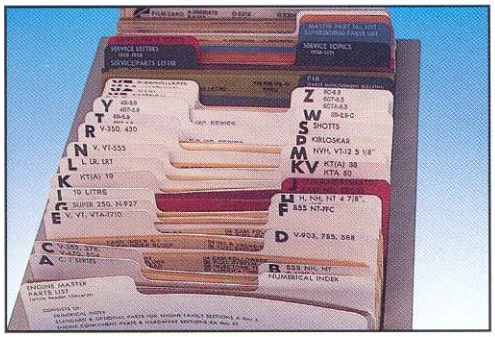
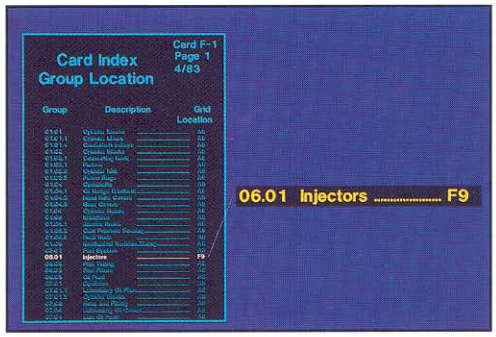
Using the Engine Family Cards to Find a Part Number without an Engine Serial Number

It is possible to use the Engine Family cards to find a Part Number without the Engine Serial Number. For example, let's find the Part Number for the standard PT injectors on an 855 NTC-250 without using the ESN.

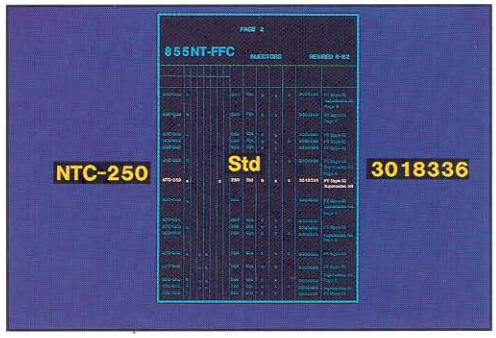


First go to the Engine Family Section of the Master Parts Book Deck. Find the tab for the Engine Family. In this case, we are looking for Tab F which covers 855-FFC engines. In this section, find the card with the correct Master Parts Group in the header. We are looking for Group 6-Injectors/Tubing which is located on Card 1.

Place this card in the reader and locate the index section found in Grid Row A, page 1. Look for "injectors" in the list. It is located about 2/3 of the way down on this card. The indicated grid location is F9.



Go to page 9 in Row F and find the line drawings showing the breakout of the injector components Scanning back to the left one full page, you will see columns listing engine models. Half way down the page, there is a listing for the NTC-250 that has "std" listed under the "Use" column. The Part Number 3018336 is in the corresponding Part Number column. Write this number down and proceed to check it for supersessions.



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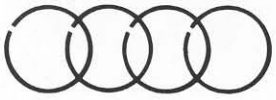

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