The MACK Engine Unit Symbol Designation System is designed to provide total unit descriptive identification through a combination of prefix letters and numbers, digits, and suffix letters as applicable. Effective April 1, 1980, a unit symbol designation based on engine horsepower replaced the unit symbol designation based on engine displacement

Prefix Letters and Numbers

1st Alpha/Numeric Character

E - MACK Turbocharged Diesel Engine (Complies with U.S. Federal 49 State Emissions Regulations)

2nd Alpha/Numeric Character

M - Maxidyne Engine (High Torque Rise)

Not Used - Standard Torque Rise Engines

3rd Alpha/Numeric Character

- C Complies with California Emissions Regulations
- N Export Engine (Equipped for Countries with no Emission Regulations
- E Export Engine (Complies with EEC Certification or BSAU-141A Certification

4th Alpha/Numeric Character Engine Family

- 4 Engine Displacement, 475 cu.in.
- 6 Engine Displacement, 672 cu.in.
 - 9 Engine Displacement, 998 cu.in.

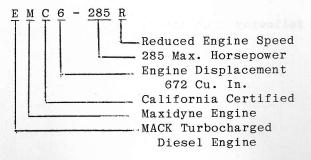
Digits

Three (3) numbers designate maximum engine horsepower.

Suffix Letter

R - Reduced speed version of Basic Engine.

Example of Designation System



Engine Designation Prior to April 1, 1980

Prefix Letters

- E Mack Diesel Engine
- D Derated Version of Engine
- T Turbocharged
- A Aftercooled
- B Mack Dynatard Engine Brake
- Z Maximum 10 grams per bhp-hr. emissions level. Certified in California 1975 through 1976; and, Federal (remaining states) 1975 through 1979.
- Y Maximum 5 grams per bhp-hr., or the next lower level under the 10 gram per bhp-hr. emissions level. (Certified in California Beginning 1977.

Digits

(Approximate Cubic Inch Displacement)

Three or four digits are used as required. With the exception of the ETA676 engines, all Maxidyne engines can be readily identified by the last digit number "5".

Suffix Letter

(Variation of Basic Unit, or Obsolete Emissions Standard)

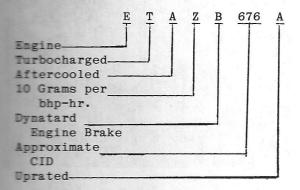
Suffix letters are used to indicate variations of the basic engine requiring identification (i.e., uprating or major component changes).

NOTE

Suffix letter "C" (discontinued symbol) indicated engines built during 1975 and 1976 for use in California. (Maximum 10 grams per bhp-hr. emissions level.)

Example of Designation System Prior To April 1, 1980

The following is an example of the designation system using all characters except the letter "D" (Derated).



Engine Designation Prefix Letters Prior To January 31, 1975

EN - Engine

END - Diesel (naturally aspirated)

ENDT - Turbocharged Diesel

ENDTB- Turbocharged Diesel with Engine Brake

ENDL - Light Weight Version of END (aluminum components)

ENDLT - Light Weight Version of ENDT (aluminum components)

"ESI" and "ESI-Plus" Programs

The Extended Service Interval Programs "ESI" and "ESI-Plus" were developed to extend the acceptable maximum allowable interval between engine lubricating oil change periods. To take advantage of either program the following conditions must be observed:

- 1. All filters, including the lubricating oil filters, primary and secondary fuel filters, and the coolant conditioner <u>MUST</u> meet and/or exceed the Mack recommended specification.
- 2. The engine lubricating oil MUST meet and/or exceed the Mack recommended specification.
- 3. The Grade "2D" Diesel fuel MUST meet and/or exceed the Mack recommended specification.

4. The Fuel Injection Pump setting MUST be maintained to the Mack factory specification.

"ESI" Program Identification

Engines featuring the "ESI" program are identified by twin full-flow "spin-on" oil filters and an oil pan capacity of 28 quarts. See Figure 2-1.



Figure 2-1. Identifying Features of "ESI" Program Engines

Lubricating Oil and Filter Change Interval "ESI" Program

Mileage	TIME	
	Months	Engine Hours
16,000	me 13 ree	300