MODEL	FLEET NUMBERS	QTY.	YEAR DELIVERED				
FLYER INDUSTRIES							
D 700A	7500 — 7509 7510 — 7522	10 13 23	1969 1972				
D 800A	7560 — 7569 7965 — 8004	10 40 50	1974 1974-75				
D 800B	8210 — 8223 8230 — 8260	14 31 45	1977 1978				
D 901	8380 — 8486	107	1981				

## **Principal Specifications**

	GIVI
Model	T6H
Seating	39
Length	40'
Width	8' 6
Height	10'
Wheelbase	23'
Tare (W1) weight	21,3
Service (W4) loading	83 F
Crush (W5) loading	106
Diesel engine	

Vehicle clearance circle radius

FLYER

T6H 5307N

D901

40

40' 6''

8' 6"

10' 3½"

23' 8¾"

21,360 lbs.

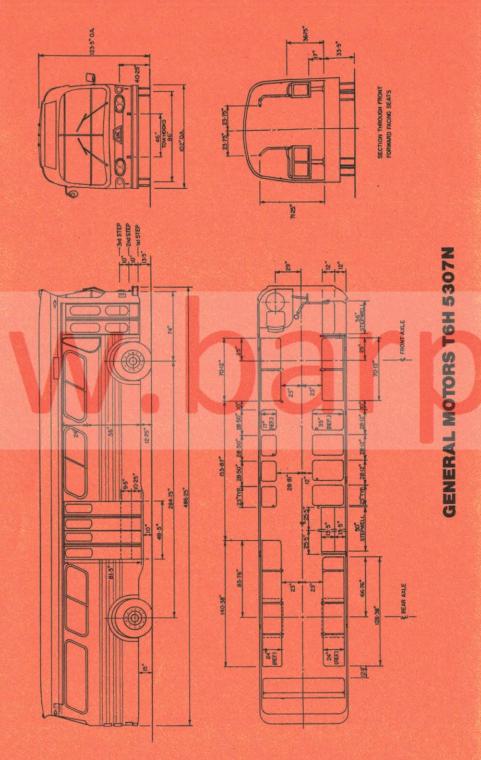
33 Passengers

106 Passengers

106 Passengers

GM Model 6 V71N 181 HP @ 2000 RPM

42' 3" 42" 3"







# **Toronto Transit Commission**



# **DIESEL CITY BUS**

40 FOOT GENERAL MOTORS & FLYER MODELS

APRIL 1984 (RFC)

## **Early Development**

When the Commission was formed in 1920 to take over the street railway systems in the city, it immediately embarked on a program of rehabilitation, expansion and integration of equipment and services. While new streetcars were purchased, and trackage relaid and extended, for the rail system, the Commission was quick to recognize the role in their operations of the relatively "new" rubber tired vehicle, which had not been utilized by the predecessor companies.

Accordingly, in 1921, orders were placed for a variety of solid-tired vehicles, viz: — double deckers Nos. 1-4 (Fifth Ave. Coach), 6 (Veteran), 7 (AEC) and 8 (Tilling Stevens), as well as single deckers 9-10 (Fifth Ave. Coach) and 11 (Pierce Arrow). Buses 1 to 4 opened the new "Humberside" route on September 20, 1921, while the single deck vehicles appeared on the new "Rosedale" route on April 26, 1922.

As additional routes were added (at a rate of 1 to 2 a year), and as ridership increased, the bus fleet grew rapidly, with continuing design improvements in size, power, comfort and reliability. Treadle exits appeared in 1927 (with 30 such bodies built in Hillcrest Shops for vehicles in 1930). Transit body design (with the engine mounted beside the driver) was introduced on 3 Ford buses in 1935, while the future standard rear-engine transit model, in production quantities, appeared as Twin Coach model 23R buses Nos. 570-589 in 1936. Not until 1946 was the diesel engine applied on production units (on General Model TDH 3610 Nos. 985-996), and from 1954 onwards became the standard power plant for the Commission. (It should be noted that in 1937 and 1938, the Commission's Gray Coach Lines had purchased three diesel-electric drive coaches for special fare services).

From the early vehicles which provided as few as 21 seats, size had now increased on some post war models to 50 seats in 40 foot units.

## The GM "New Look" Design

During the late 1950's General Motors Truck and Coach Division (of Detroit) began the development of what was to become the basic transit bus for North America. Their model 5300 series, which GM designated the "New Look", was the first major city bus design in more than 20 years. It featured a standard 6 cylinder "V" type engine with automatic transmission, together with greatly increased passenger window and driver windshield area. The heating and ventilating system was also much improved, and the use of the "shorter" V6 engine allowed room in the engine compartment for optional air conditioning equipment.

In 1959, the Commission acquired its first group of fifty model 5301 city buses.

Prior to November 1962, the 5300 series were manufactured solely in the United States (at Detroit) but from that date General Motors began producing the Canadian version at their London, Ontario plant and has since produced almost 11,000 of this series both at London and (more recently) at their facility at St. Eustache, Quebec.

This Canadian production is in addition to more than 45,000 of the 5300 series produced in the United States since 1958. To date, the

Commission has purchased 1664 of the "New Look" vehicles, which constitute the majority of its city bus fleet.

In 1981, GM Diesel Division (at London) began a program to update the current (5307) model. While the basic body structure remains essentially the same, new front and rear styling, and increased size passenger (side) windows are featured. GM has designated this updated version the "Classic".

#### Flyer Industries Developments

In 1967, Western Flyer (later Flyer Industries) of Winnipeg began production of a 40 foot transit bus which was similar in appearance and capacity to the General Motors model 5300 series. Since then Flyer Industries has progressively modified and cosmetically changed the initial coach design. During this time period, the term "New Look" (which originated with the GM model 5300 bus) became synonymous with the general style of bus which was being produced by a number of manufacturers in North America. The Flyer Industries buses built in this category include the D-700, 800, 900 & 901 series, together with an electric trolley coach version (E-series) of each.

In 1969, and again in 1972, the TTC acquired its first diesel buses from Western Flyer model D-700A (7500-7522), which were fitted with 6V71 GM diesel engines mounted longitudinally.

In 1974, TTC acquired ten model D-800A buses (7560-7569). These were similar to the model 700 in that the engines and transmissions were mounted longitudinally, however major changes were made to the external appearance of the vehicle.

In 1977, the Commission acquired the model D-800B (8210-8223) which was fitted with the standard GM Diesel Division transverse mounted engine and transmission package.

In 1980, model D-901 buses (8380-8486) arrived which featured double width entrance doors, introduced to provide space for a wheel chair lift to be installed. This model, with a basically flat front end, differs only in that the two piece window glass on the 901 version is curved while the 900 series windshield sections are flat.

TTC has purchased 225 of the various Flyer diesel models, and 150 of the model E-700A trolley buses.

#### Seating

A number of changes in both seating arrangement and seat design have been experimentally assessed and/or adopted by the Commission:

- To increase standee area and improved passenger flow in front of vehicle, single (forward facing) seats were adopted (in place of doubles) on right side of GM Model TDH 4518 buses (TTC 1955-1984) in 1956.
- The single seats were moved to the left side commencing with 3100-3139 in 1962.
- Fibreglass seats were tested in 5 buses (3347/48/77/78/79) in 1963.

- Otaco modular "Innovator" seats were tested on 8158 in 1976, and American Seating model 6464 seats in 8213 in 1977.
- In 1978, perimeter seating aft of the centre doors was arranged longitudinally to assist passenger flow (commencing with 8230-8260).
- Fibreglass seats were tested on 8270-8314 (American Seating model 6463) and 8320-8369 (Otaco model 850) in 1980.
- Otaco model 550T seats were applied in 8570-8729 in 1981-82.

YEAR

FLEET

## **Condensed Roster**

	MODEL	NUMBERS	QTY.	DELIVERED		
GENERAL MOTORS						
	TDH 5301	2900 — 2949 2950 — 2984 3100 — 3139	50 35 40 125	1959 1960 1962		
	TDH 4517	2985 — 2999	15	1960		
	TDH 5302	3140 — 3149	10	1962		
	TDH 5303	3300 — 3379 3500 — 3574 3575 — 3599)	80 75	1963 1964-65		
		3700 — 3799) 3900 — 3979 7100 — 7179	125 80 80 440	1965-66 1966 1967		
	TDH 5304	3150 — 3174 3980 — 3999 7190 — 7199	25 20 20 65	1963 1966-67 1967		
	T6H 5305	7300 — 7354 7355 — 7395 7523 — 7562	55 41 30 126	1968-69 1969-70 1972		
	T6H 5307N	7570 — 7599} 7700 — 7774}	105	1973		
		7775 — 7779 } 7900 — 7962 }	88	1974-75		
		8010 — 8117 8140 — 8158 8160 — 8204 8270 — 8314 8320 — 8369 8520 — 8561 8570 — 8729 8740 — 8985	108 19 45 45 50 42 160 246 908	1975 1976 1977 1979 1980 1981 1981-82 1982-83		