



**SERVICE MANUAL &  
TECHNICAL BULLETIN**  
**MODEL F05 SERIES**

SERVICE

# INTRODUCTION

This service manual has been prepared to provide necessary information concerning the maintenance and repair work on the NISSAN FORKLIFT F05 series.

Any changes effected in the series after publication of this service manual will be announced in a technical bulletin. It is, therefore, recommended that each relevant technical bulletin be inserted in front of each section and be used together with the service manual as a reference.

If a new model requires different service method or has undergone a major change, revised sections will be issued to replace the applicable sections. Each revised section will include the description of how to service the parts for the former specifications. The publication of a revised section will be announced in the technical bulletin.

This service manual consists of twenty-one sections as shown in the following table, which gives the updated symbols. When a revised service manual is issued, this "INTRODUCTION" sheet should be replaced with a revised one.

Section	Symbol
GENERAL INFORMATION	(GI)
MAINTENANCE	(MA)
ENGINE TUNE-UP (FD6 ENGINE)	(ET)
ENGINE MECHANICAL (FD6 ENGINE)	(EM)
ENGINE LUBRICATION SYSTEM (FD6 ENGINE)	(EL)
COOLING SYSTEM (FD6 ENGINE)	(CO)
ENGINE FUEL (FD6 ENGINE)	(EF)
GOVERNOR SYSTEM (FD6 ENGINE)	(GO)
ENGINE ELECTRICAL (FD6 ENGINE)	(EE)
ENGINE REMOVAL	(ER)
AUTOMATIC TRANSMISSION	(AT)
PROPELLER SHAFT & DIFFERENTIAL CARRIER	(PD)
FRONT AXLE	(FA)
REAR AXLE	(RA)
BRAKE SYSTEM	(BR)
STEERING SYSTEM	(ST)
HYDRAULIC SYSTEM	(HD)
LOADING MECHANISM	(LM)
ENGINE CONTROL, FUEL & EXHAUST SYSTEMS	(FE)
BODY & FRAME	(BF)
BODY ELECTRICAL	(BE)

**GENERAL INFORMATION**  
**(GI)**  
**MODEL F05 SERIES**

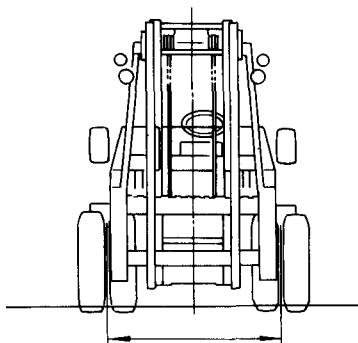
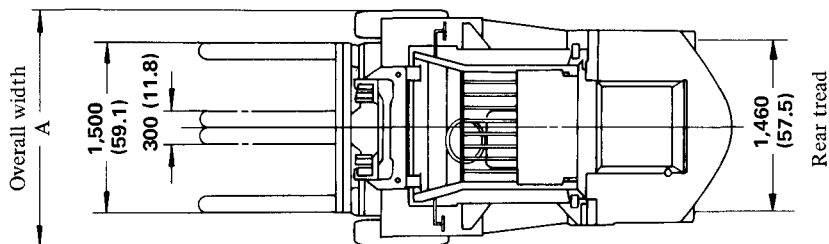
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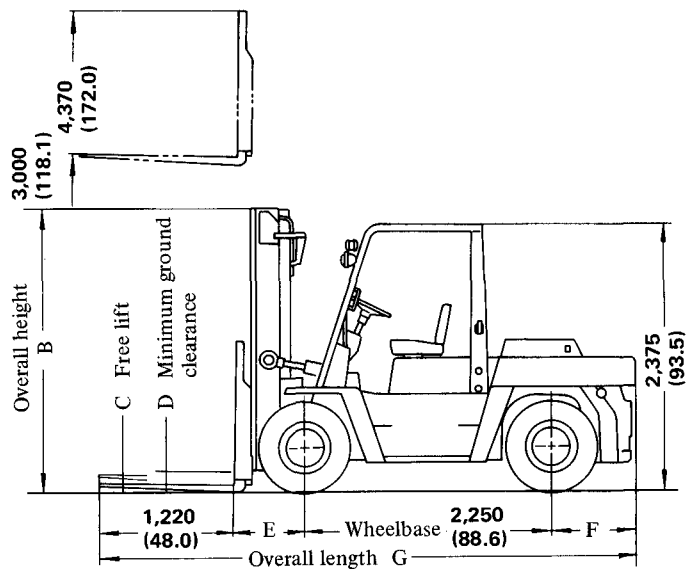
GENERAL VIEWS

GENERAL VIEWS

Unit: mm (in)



Front tread



Unit: mm (in)

	F05A/N50	F05A/N60	F05A/N70
A. Overall width	1,880 (74.0)	1,990 (78.3)	
B. Overall height	2,505 (98.6)	2,510 (98.8)	
C. Free height	155 (6.1)	160 (6.3)	170 (6.7)
D. Min. ground clearance	205 (8.1)	210 (8.3)	
E. Front overhang	600 (23.6)	605 (23.8)	
F. Rear overhang	625 (24.6)	685 (27.0)	780 (30.7)
G. Overall length	4,695 (184.8)	4,760 (187.4)	4,855 (191.1)
H. Front tread	1,580 (62.2)	1,470 (57.9)	

MODEL VARIATION

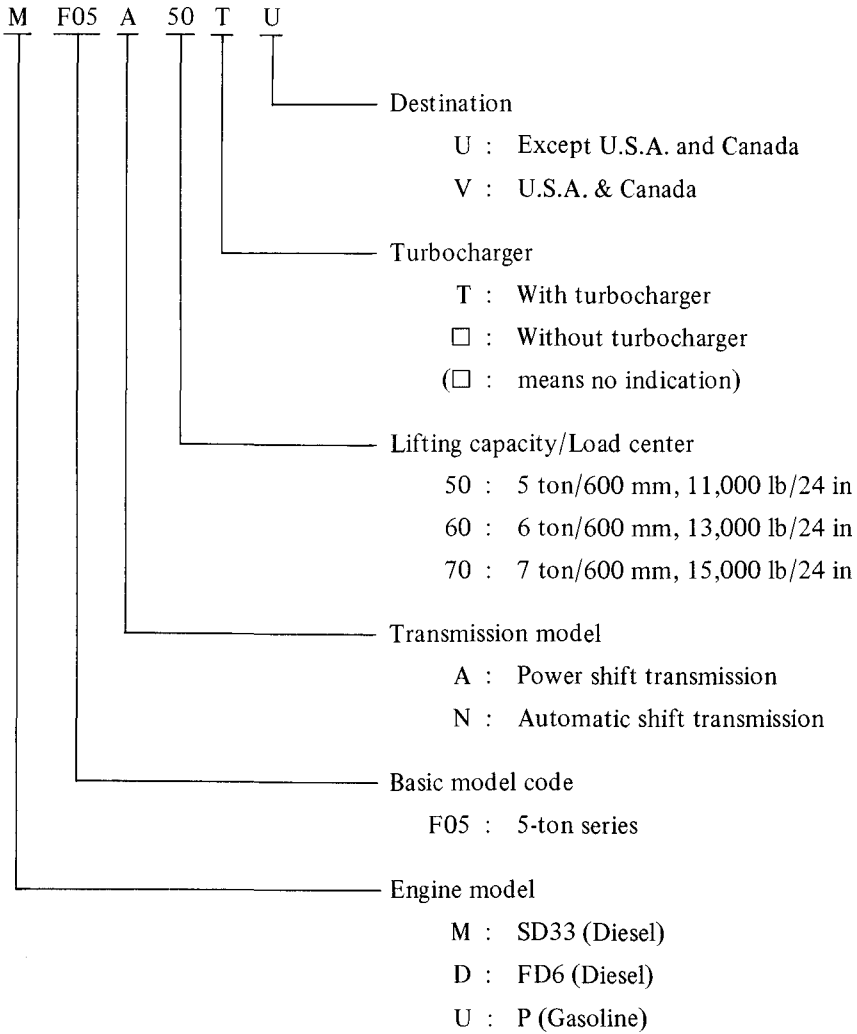
MODEL VARIATION

Lifting capacity/Load center	Model		Engine	Transmission	Differential carrier	Road wheel size ... offset (in)	Tire
	Except for U.S.A. and Canada	For U.S.A. and Canada					
5 ton/600 mm 11,000 lb/24 in	MF05A50TU	-	SD33	2SF150S	H339	Front: 8.00V x 15IR ... -64.5 (-2.539) Rear: 6.50T x 15IR ... 59 (2.32)	Front: 300-15-18PR(I) (Single-tire) Rear: 8.25-15-12PR(I)
	MF05N50TU	-					
	DF05A50U	DF05A50V	FD6				
	DF05N50U	DF05N50V					
	UF05A50U	UF05A50V	P				
6 ton/600 mm 13,000 lb/24 in	MF05A60TU	-	SD33				
	MF05N60TU	-					
	DF05A60U	FD05A60V	FD6				
	DF05N60U	DF05A60V					
	UF05A60U	UF05A60V	P				
7 ton/600 mm 15,000 lb/24 in	-	-	SD33	*6.50T x 15IR ... 59 (2.32)		Front: 8.25-15-12PR(I) (Double tire) Rear: 8.25-15-12PR(I)	
	DF05A70U	DF05A70V					
	DF05N70U	DF05N70V	FD6				
	UF05A70U	UF05A70V					P

\* 6-ton and 7-ton models use double tires as standard equipment.  
The same type is used for both inner and outer wheels.

## MODEL VARIATION

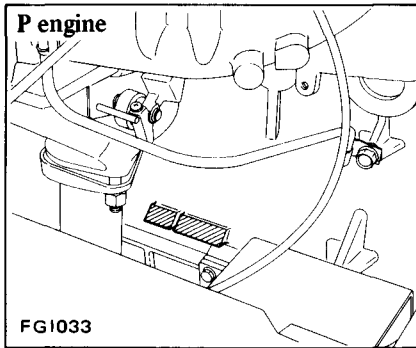
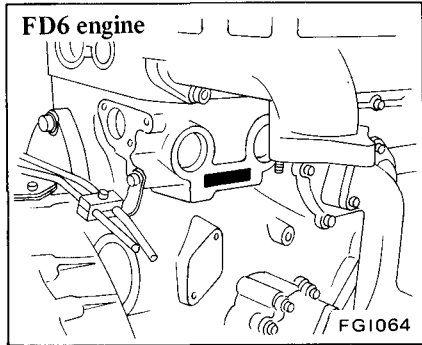
### Prefix and suffix designations



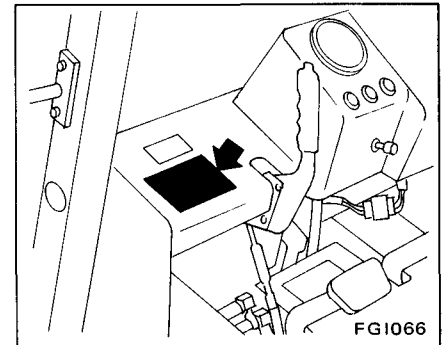
# IDENTIFICATION NUMBERS

## ENGINE SERIAL NUMBER

FD6    XXXXXX  
SD33   XXXXXT  
P       KXXXXX

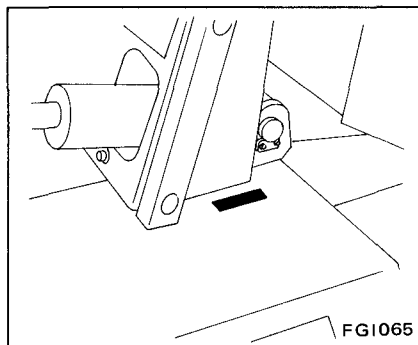
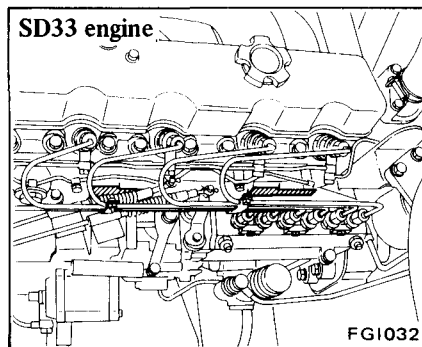


## LIFT TRUCK IDENTIFICATION PLATE

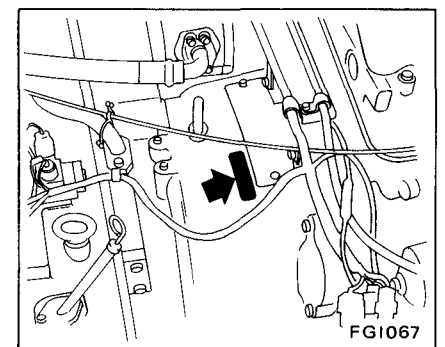


## CHASSIS SERIAL NUMBER

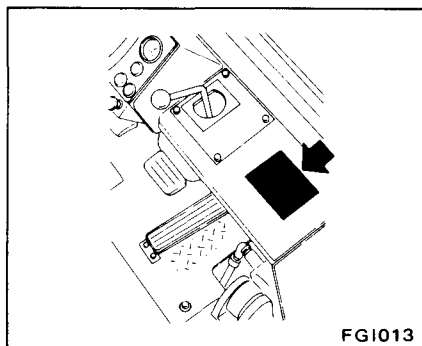
DF05   XXXXXX  
MF05   XXXXXX  
UF05   XXXXXX



## TRANSMISSION SERIAL NUMBER



## LOAD CHART



# LIFTING POINTS AND TOWING

## APPROXIMATE WEIGHT

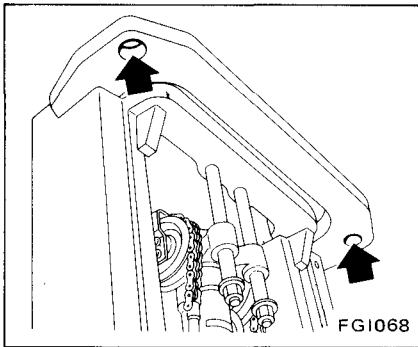
Unit: kg (lb)

Weight	Weight distribution		Truck weight
	Front	Rear	
DF05A50	3,620 (7,985)	3,955 (8,720)	7,575 (16,705)
MF05A50	3,565 (7,860)	3,825 (8,435)	7,390 (16,295)
UF05A50	3,550 (7,830)	3,785 (8,345)	7,335 (16,175)
DF05A60	3,550 (7,830)	4,675 (10,305)	8,225 (18,135)
MF05A60	3,495 (7,705)	4,550 (10,035)	8,045 (17,740)
UF05A60	3,485 (7,685)	4,500 (9,920)	7,985 (17,605)
DF05A70	3,535 (7,795)	5,405 (11,920)	8,940 (19,715)
UF05A70	3,470 (7,650)	5,230 (11,535)	8,700 (19,185)

## LIFTING POINTS

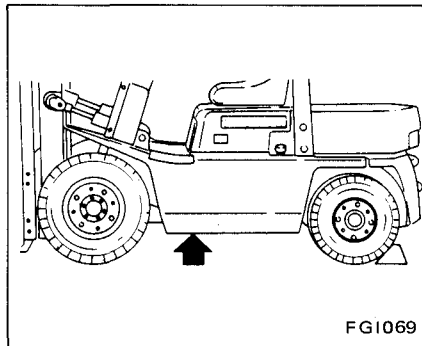
### FRONT SIDE

1. Place chocks behind rear wheels.
2. Lift outer mast with a hoist.



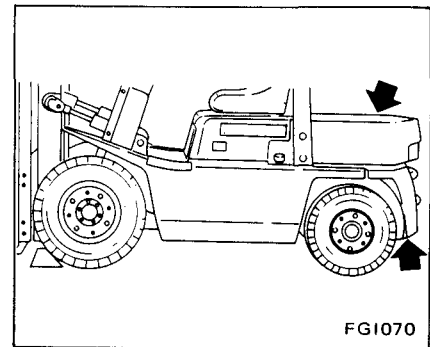
3. Place wooden blocks under both side frames. Gradually lower front end to ground. Be careful not to dislocate blocks while lowering.

**After supporting lift truck with blocks, swing it back and forth and left and right to see if it is safe.**



### REAR SIDE

1. Place chocks in front of front wheels.
2. Jack up counterweight or lift counterweight with a hoist.

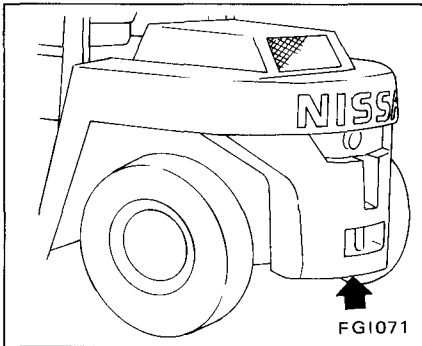




## SPECIAL SERVICE TOOLS

3. Place wooden blocks under counterweight. Gradually lower rear end to ground. Be careful not to dislocate blocks while lowering.

**After supporting lift truck with blocks, swing it back and forth and from side to side to see if it is safe.**

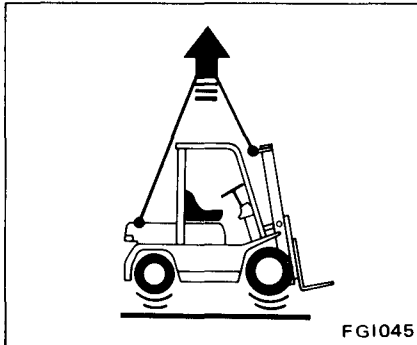


### LIFTING UP FORKLIFT TRUCK

When lifting the entire forklift truck, secure wire ropes to holes on both sides of the outer mast cross beam and to the hook on the counterweight, and then utilize a lifting device.

#### WARNING:

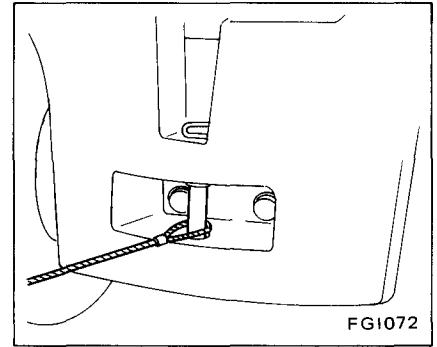
- Make sure that the wire ropes do not interfere with the overhead guard while lifting the truck.
- Ensure that the wire ropes and lifting device are strong enough to support the lift truck safely, as the lift truck is extremely heavy.



### TOWING

Before towing a lift truck, secure a wire rope to traction pin. Make sure parking brake is released.

- a. Do not attach towing rope to any points other than those designated.
- b. To prevent accidents, do not apply load to wire rope abruptly.



## SPECIAL SERVICE TOOLS

Special Service Tools play very important role in the maintenance of lift truck. These are essential to the safe, accurate and speedy servicing.

The working times listed in the column under FLAT RATE TIME in FLAT RATE SCHEDULE are com-

puted based on the use of Special Service Tools.

The identification code of maintenance tools is made up of 2 alphabetical letters and 8-digital figures.

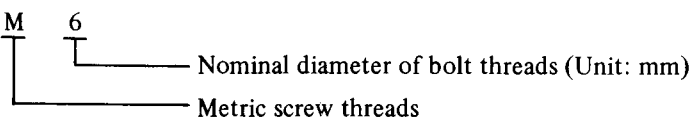
The heading two letters roughly classify tools or equipment as:

ST00000000: Special Tool  
KV00000000: Special Tool  
GG00000000: General Gauge  
LM00000000: Garage Tool  
HT00000000: Hand Tool

**TIGHTENING TORQUE OF STANDARD BOLT**

**TIGHTENING TORQUE OF STANDARD BOLT**

Grade	* Nominal diameter mm	Pitch mm	Tightening torque		
			N·m	kg·m	ft·lb
4T	M6	1.0	3 - 4	0.3 - 0.4	2.2 - 2.9
	M8	1.25	8 - 11	0.8 - 1.1	5.8 - 8.0
		1.0	8 - 11	0.8 - 1.1	5.8 - 8.0
	M10	1.5	16 - 22	1.6 - 2.2	12 - 16
		1.25	16 - 22	1.6 - 2.2	12 - 16
	M12	1.75	26 - 36	2.7 - 3.7	20 - 27
1.25		30 - 40	3.1 - 4.1	22 - 30	
7T	M14	1.5	46 - 62	4.7 - 6.3	34 - 46
	M6	1.0	6 - 7	0.6 - 0.7	4.3 - 5.1
	M8	1.25	14 - 18	1.4 - 1.8	10 - 13
		1.0	14 - 18	1.4 - 1.8	10 - 13
	M10	1.5	25 - 35	2.6 - 3.6	19 - 26
		1.25	26 - 36	2.7 - 3.7	20 - 27
	M12	1.75	45 - 61	4.6 - 6.2	33 - 45
		1.25	50 - 68	5.1 - 6.9	37 - 50
	M14	1.5	76 - 103	7.7 - 10.5	56 - 76
	M16	1.5	118 - 157	12.0 - 16.0	87 - 116
	M18	1.5	177 - 235	18.0 - 24.0	130 - 174
M20	1.5	245 - 324	25.0 - 33.0	181 - 239	
M22	1.5	324 - 441	33.0 - 45.0	239 - 325	
9T	M6	1.0	8 - 11	0.8 - 1.1	5.8 - 8.0
	M8	1.25	19 - 25	1.9 - 2.5	14 - 18
		1.0	20 - 27	2.0 - 2.8	14 - 20
	M10	1.5	36 - 50	3.7 - 5.1	27 - 37
		1.25	39 - 51	4.0 - 5.2	29 - 38
	M12	1.75	65 - 88	6.6 - 9.0	48 - 65
		1.25	72 - 97	7.3 - 9.9	53 - 72
	M14	1.5	108 - 147	11.0 - 15.0	80 - 108
	M16	1.5	167 - 226	17.0 - 23.0	123 - 166
	M18	1.5	255 - 343	26.0 - 35.0	188 - 253
M20	1.5	343 - 461	35.0 - 47.0	253 - 340	
M22	1.5	471 - 632	48.0 - 64.4	347 - 466	

\* Nominal diameter **M 6**  


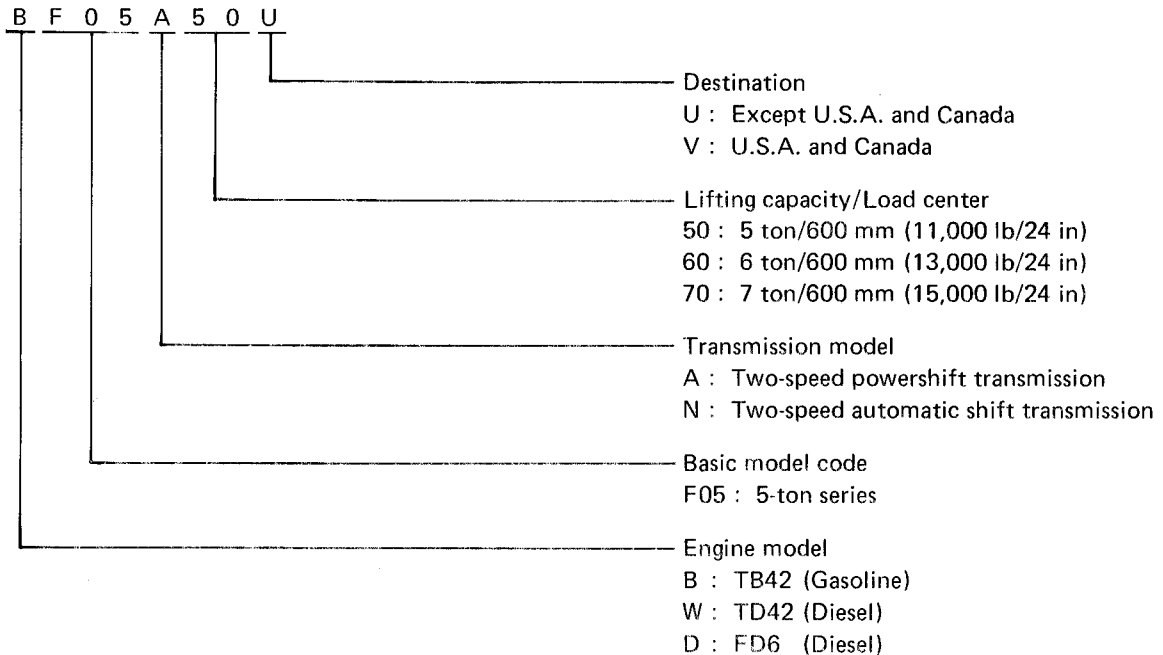
1. Special parts are excluded.
2. This standard is applicable to bolts having the following mark embossed on the bolt head.

Grade	Embossed number
4T .....	4
7T .....	7
9T .....	9

# MODEL VARIATION

Lifting capacity/Load center		Engine	Transmission	Model	
ton/mm	lb/in			Except for U.S.A. and Canada	For U.S.A. and Canada
5/600	11,000/24	TB42	2FS-150S	BF05A50U	BF05A50V
		TD42		WF05A50U	—
		FD6		WF05N50U	—
6/600	13,000/24	TB42		DF05A50U	DF05A50V
		TD42		DF05N50U	DF05N50V
		FD6		BF05A60U	BF05A60V
7/600	15,000/24	TB42		WF05A60U	—
		TD42		WF05N60U	—
		FD6		DF05A60U	DF05A60V
5/600	11,000/24	TB42		DF05N60U	DF05N60V
		TD42		BF05A70U	BF05A70V
		FD6		WF05A70U	—
6/600	13,000/24	TB42	WF05N70U	—	
		TD42	DF05A70U	DF05A70V	
		FD6	DF05N70U	DF05N70V	

## MODEL CODING SYSTEM



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