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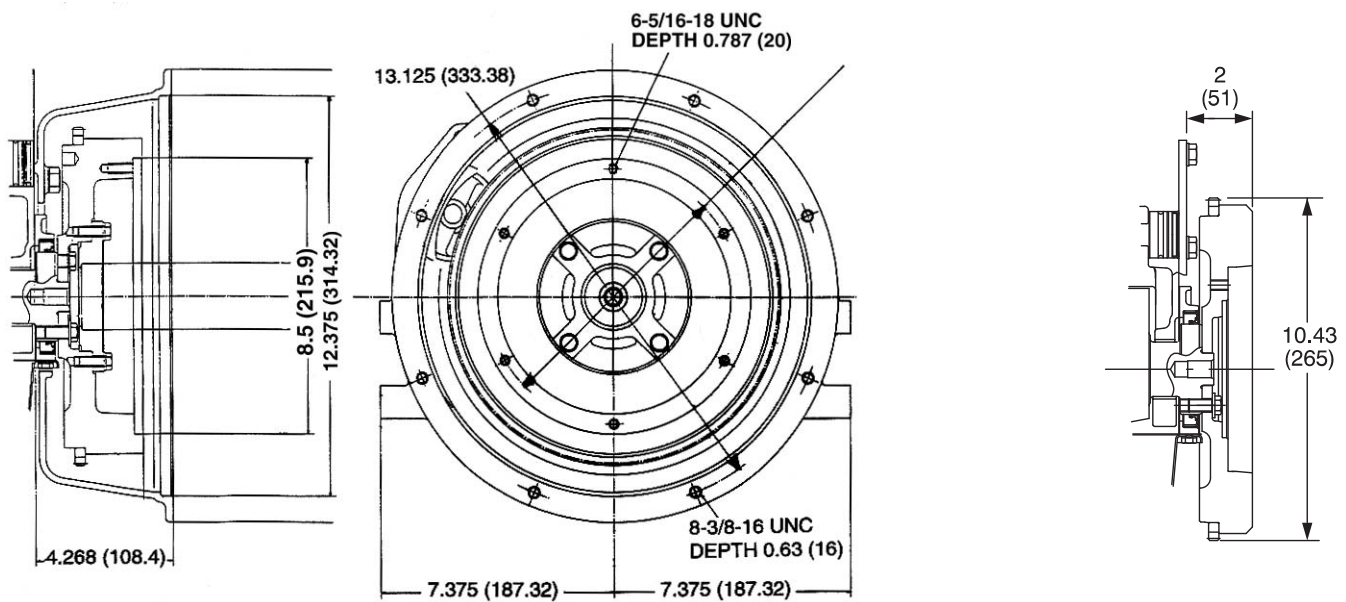
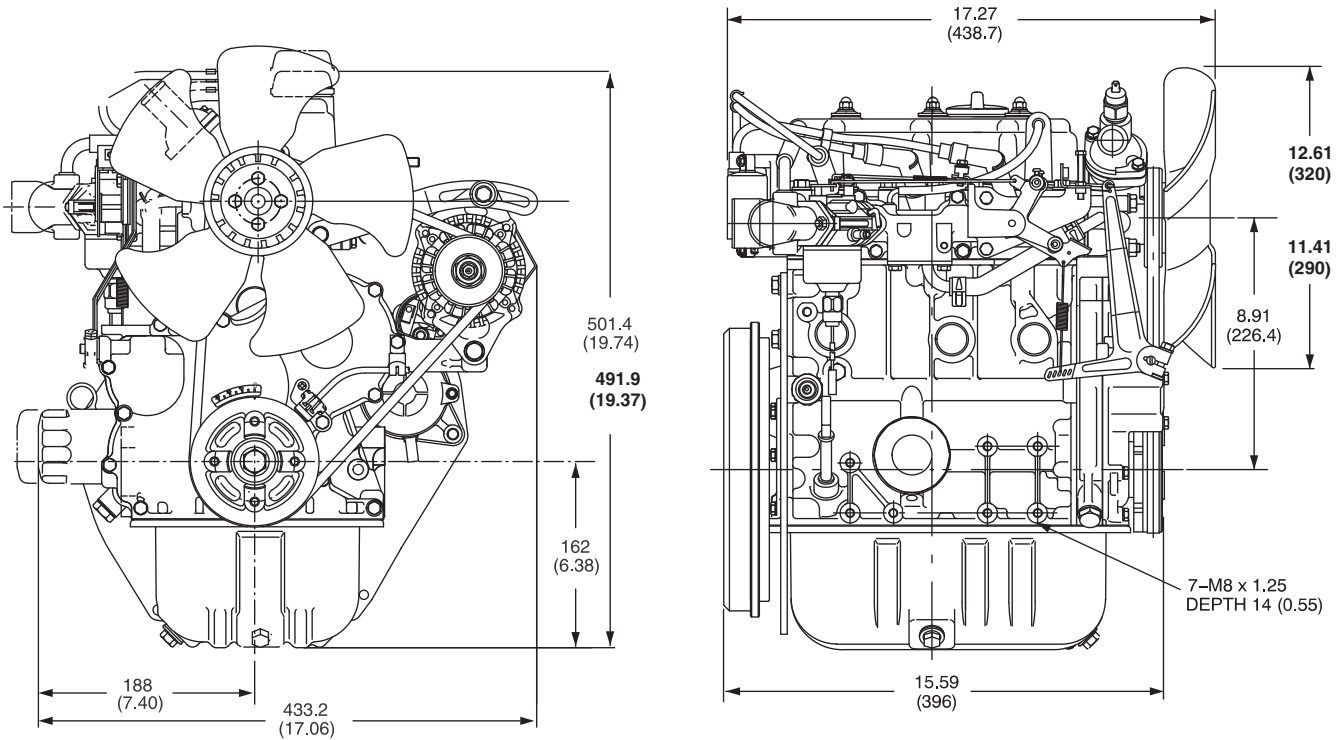
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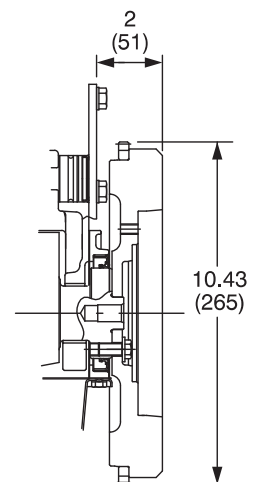
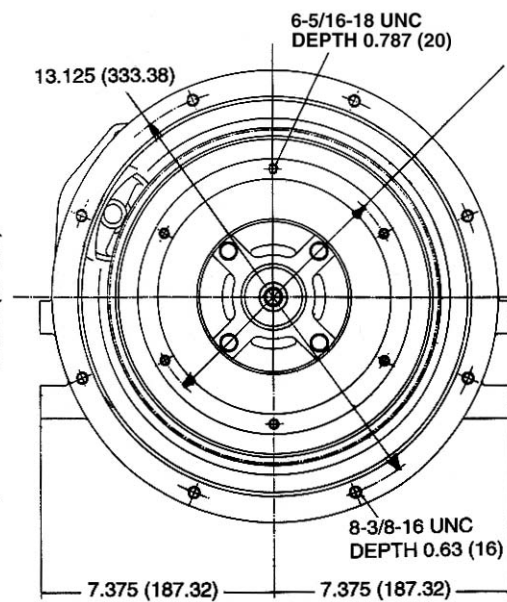
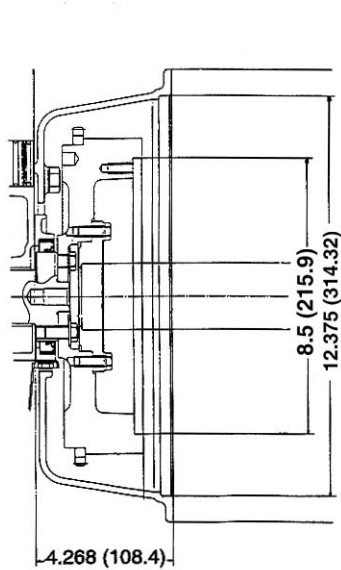
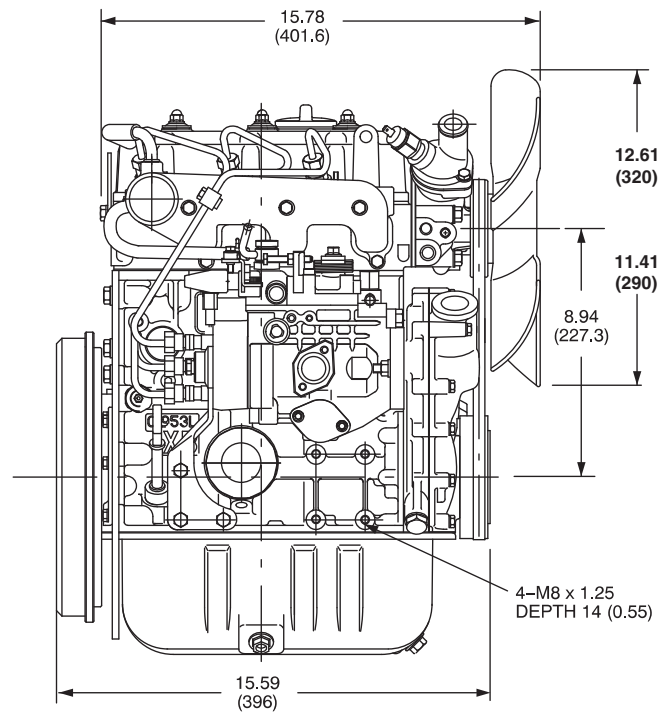
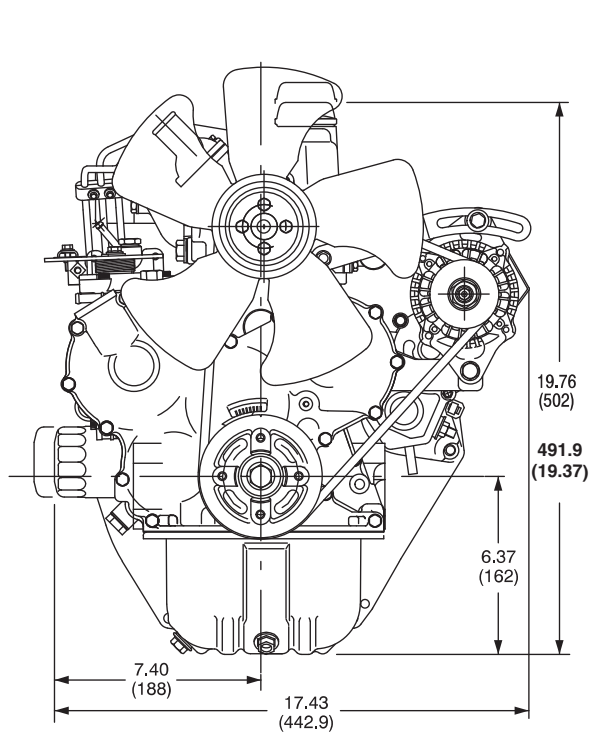
700G/950G/954G

23.5/31/34 HP @ 3600 RPM



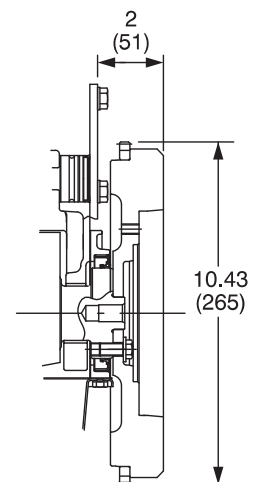
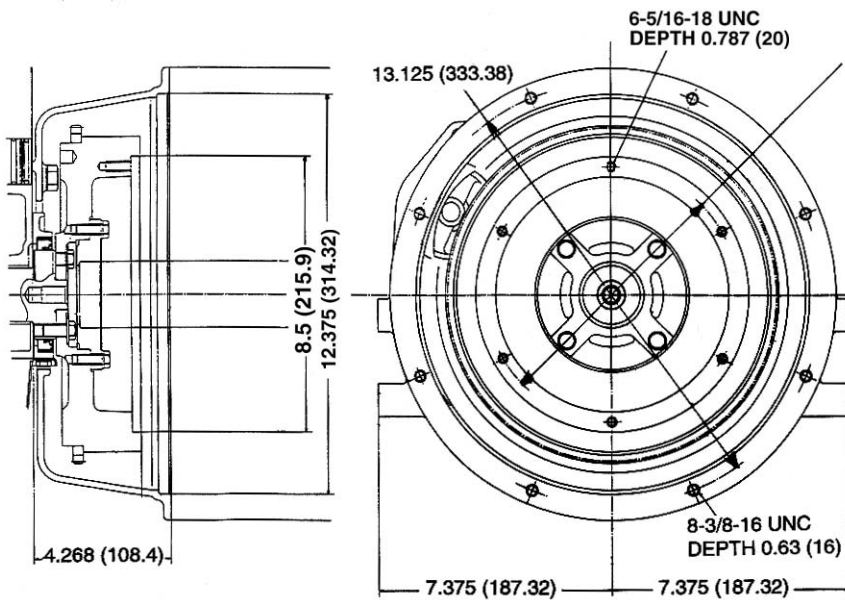
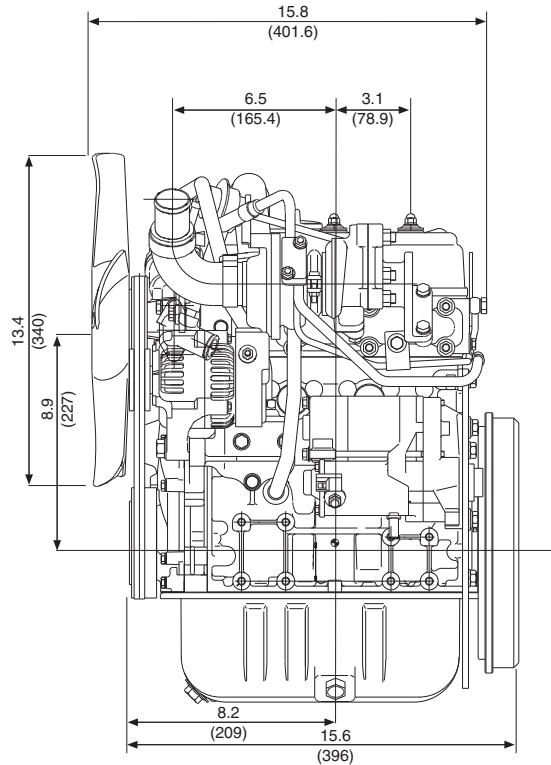
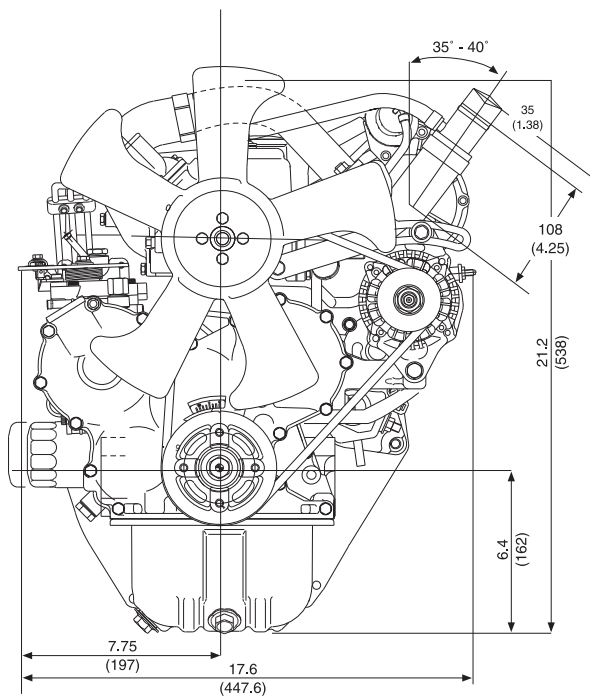
700D/850D/950D

18/23.6/26.5 HP @ 3600 RPM

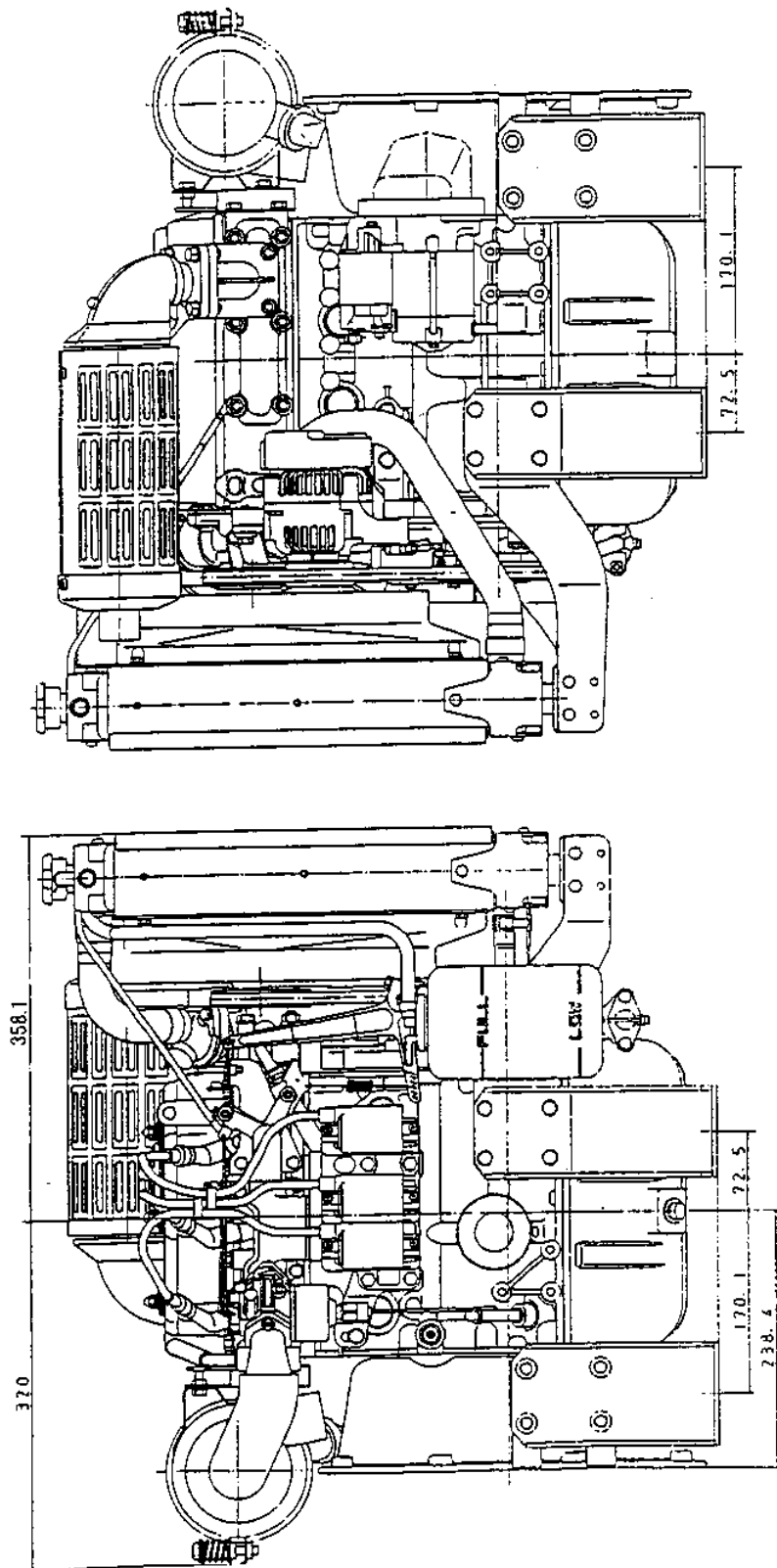


950DT/954DT

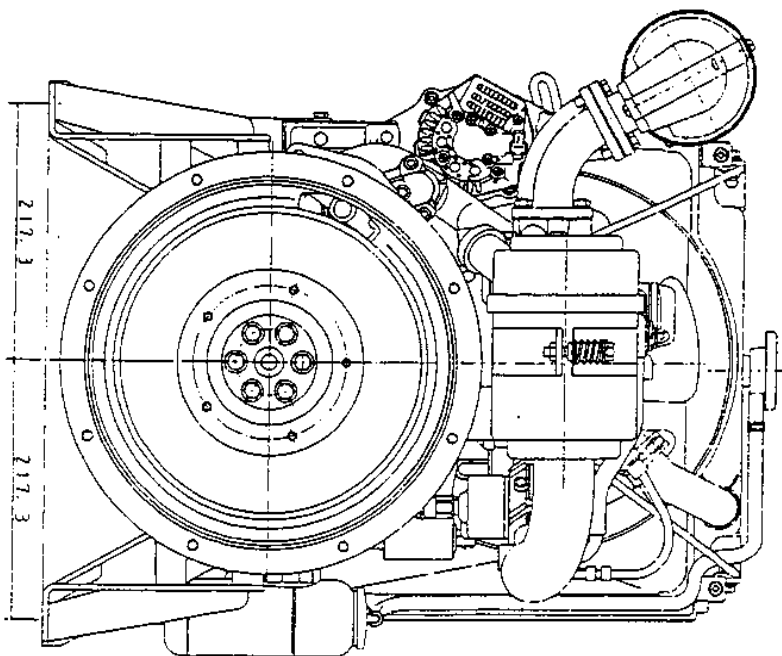
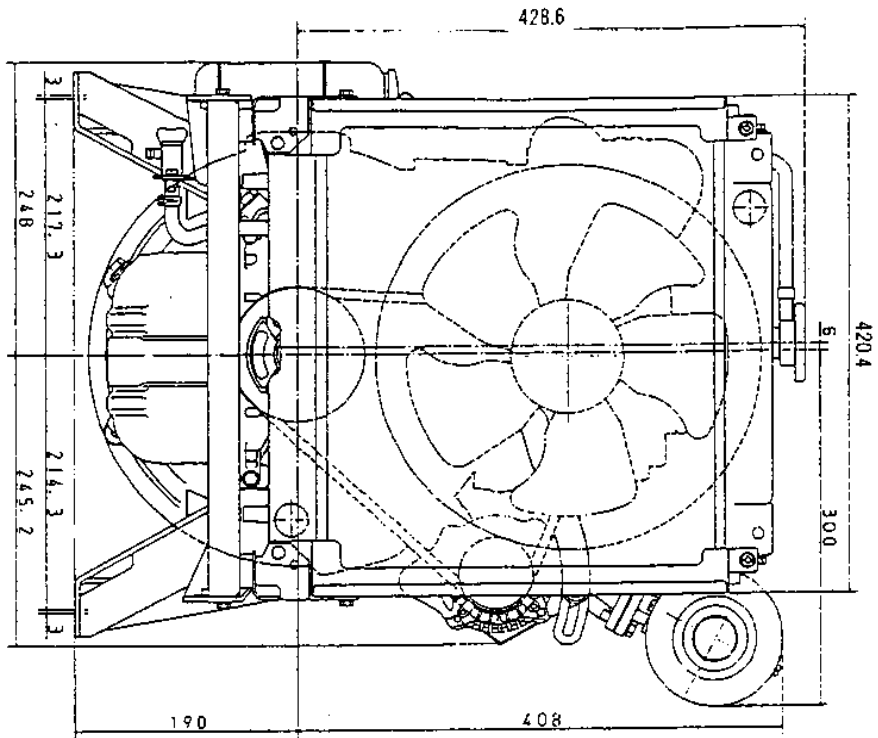
31/34 HP @ 3600 RPM



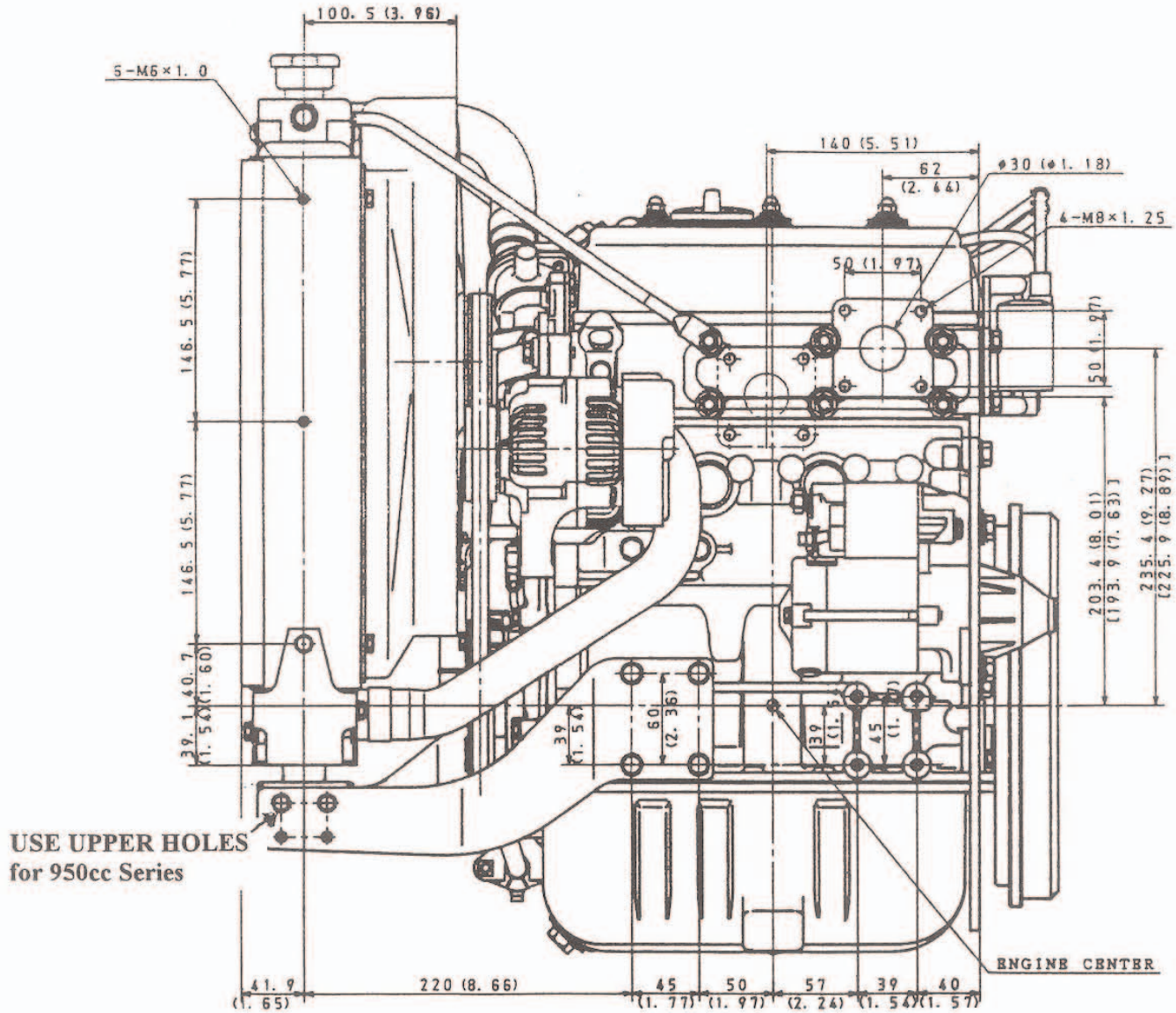
POWER UNIT WITH SAE HOUSING 950G



POWER UNIT WITH SAE HOUSING 950G

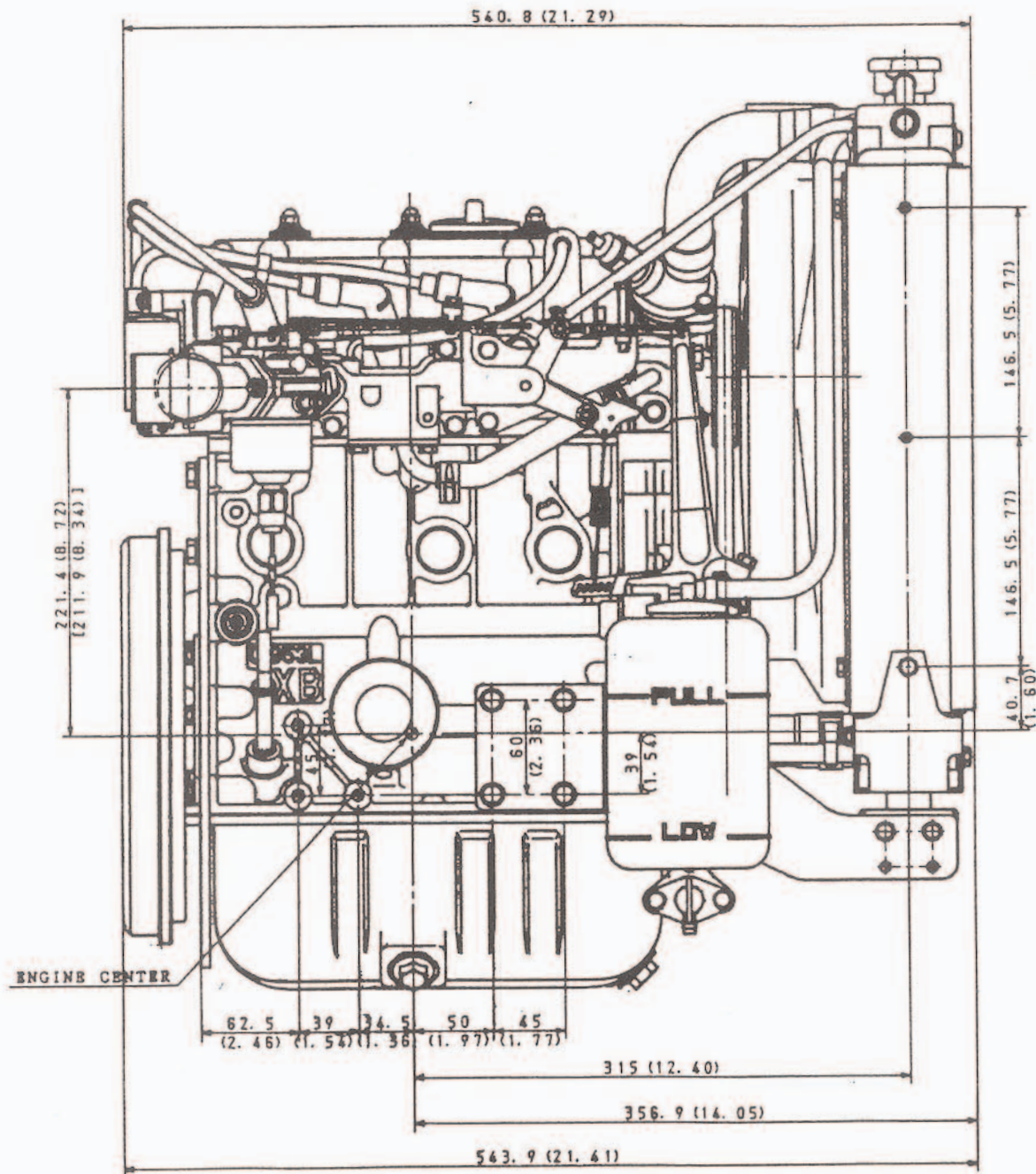


325mm
RADIATOR
(mounted to engine)



Dimensions in mm
Dimensions in () are for 950cc series

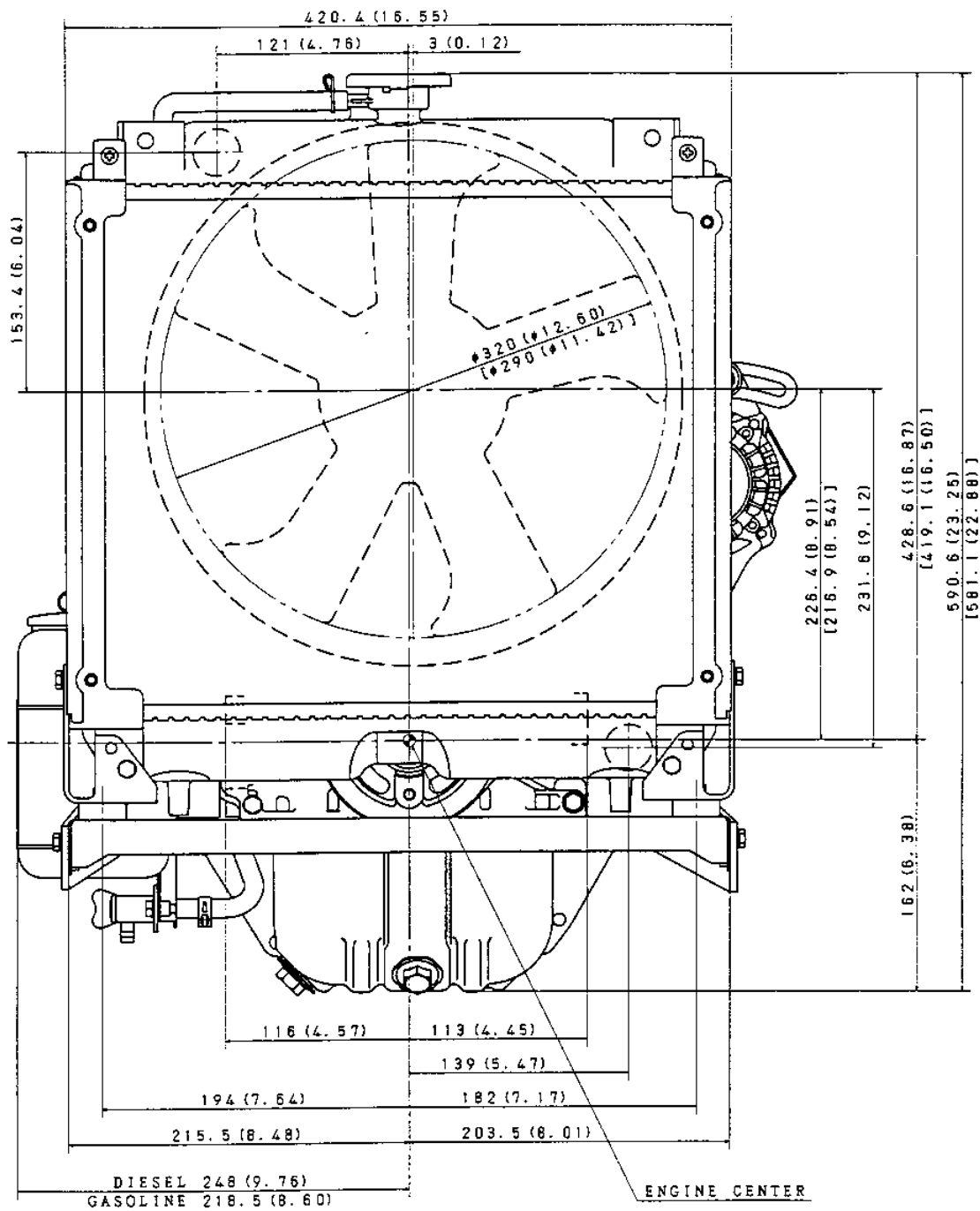
(mounted to engine)



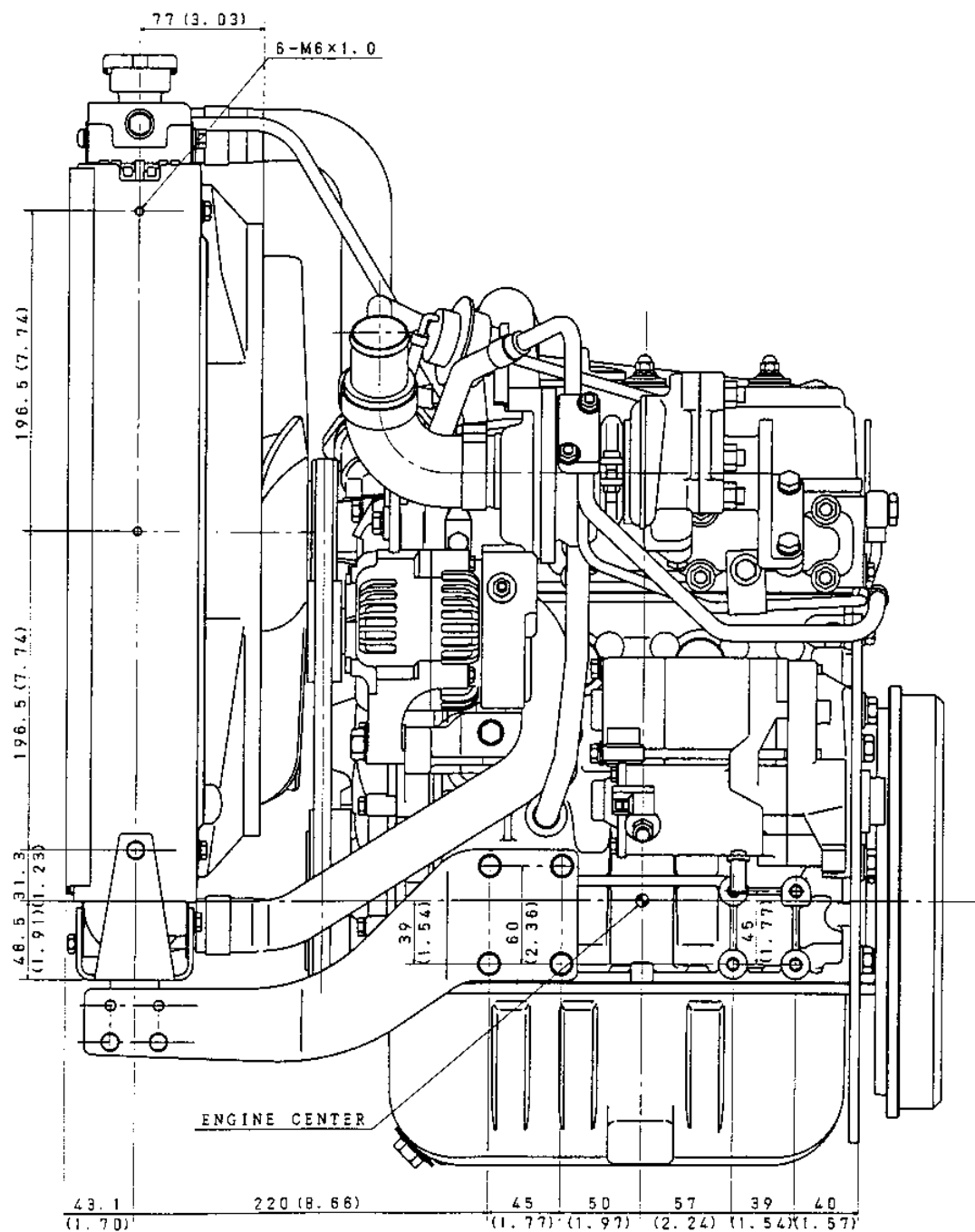
Dimensions in () are for 950cc series

325mm

RADIATOR (mounted to engine)



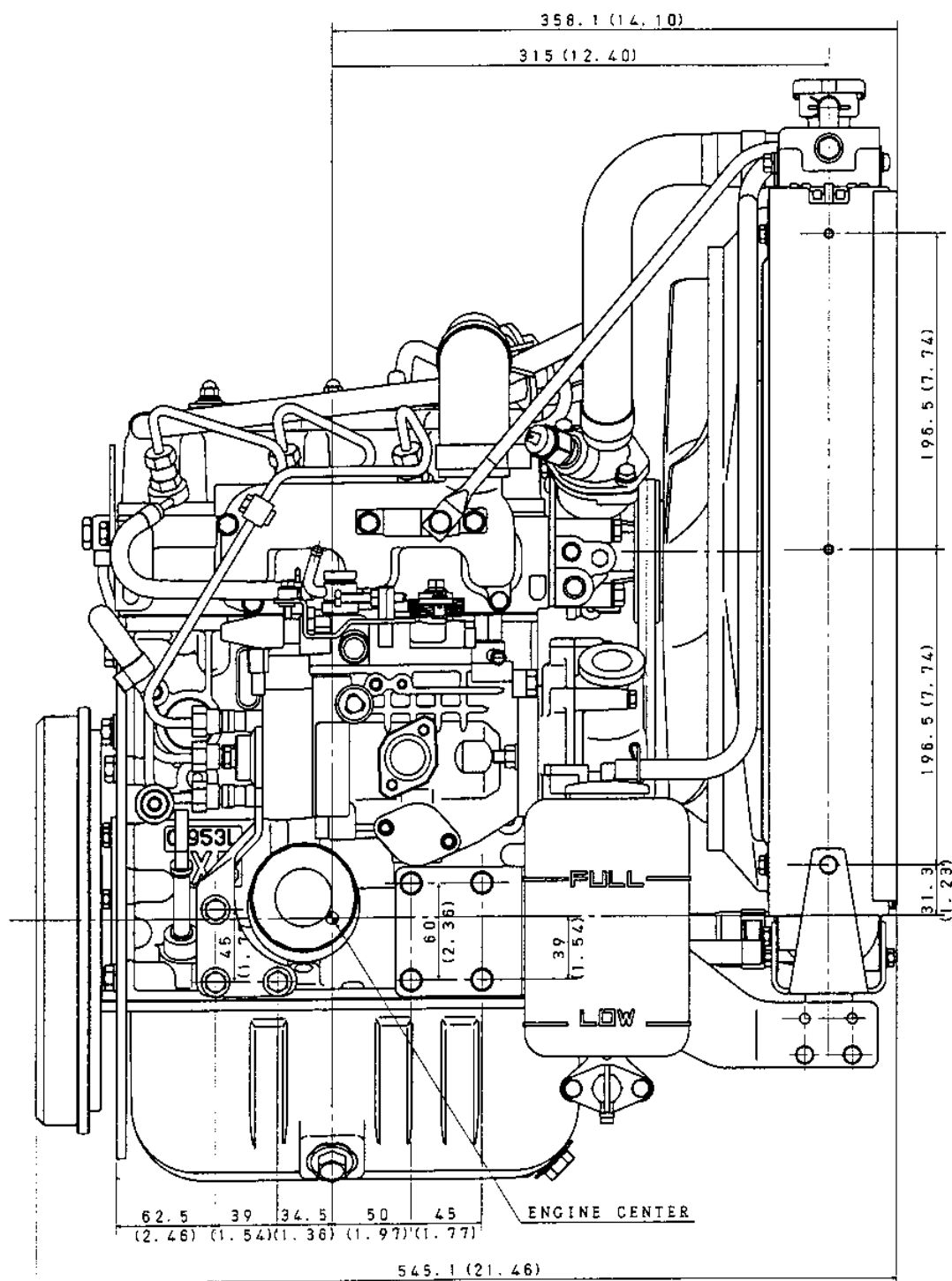
425mm
RADIATOR (mounted to 950DT)



UNIT : mm (inch)

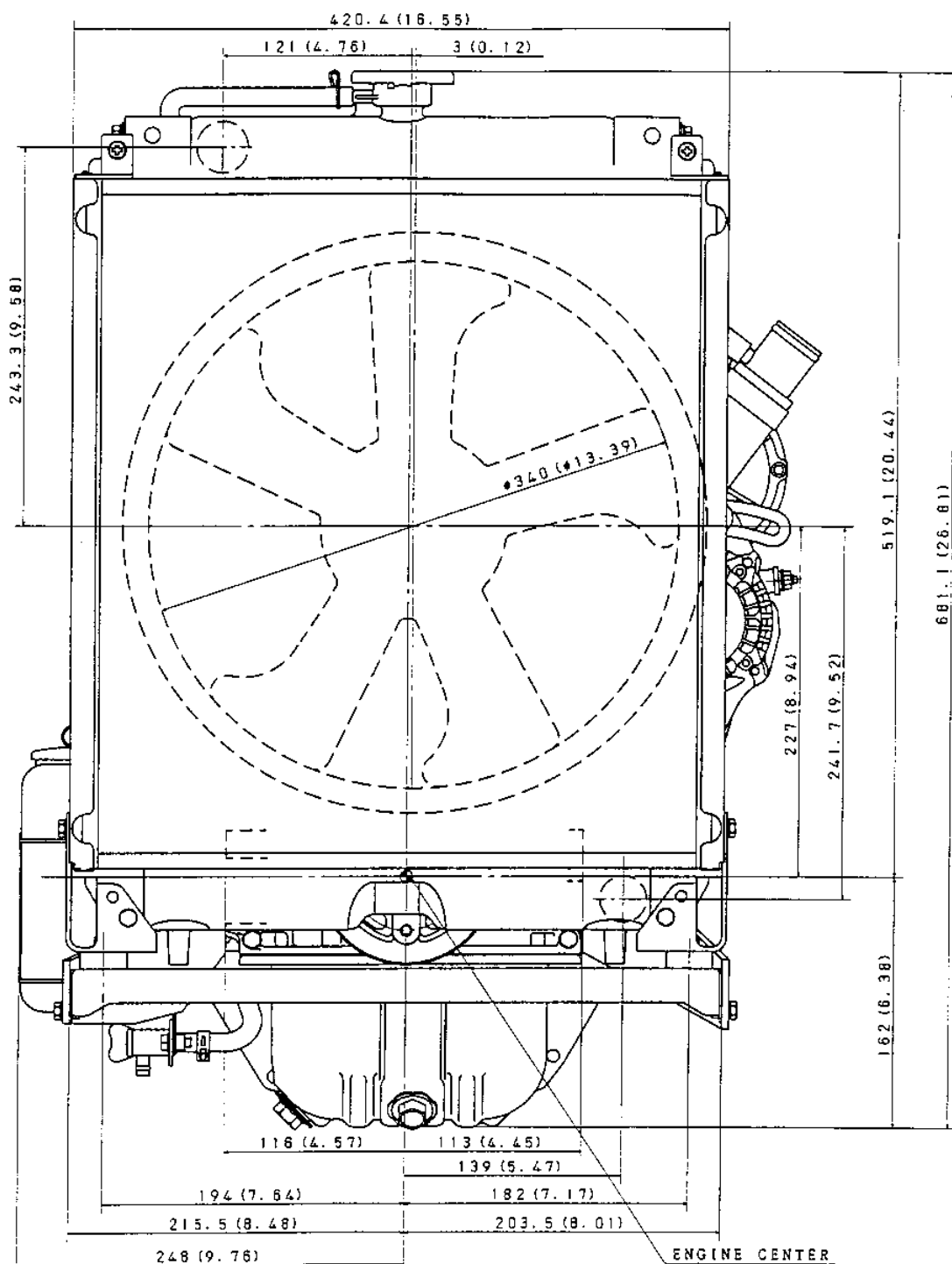
425mm

RADIATOR (mounted to 950DT)



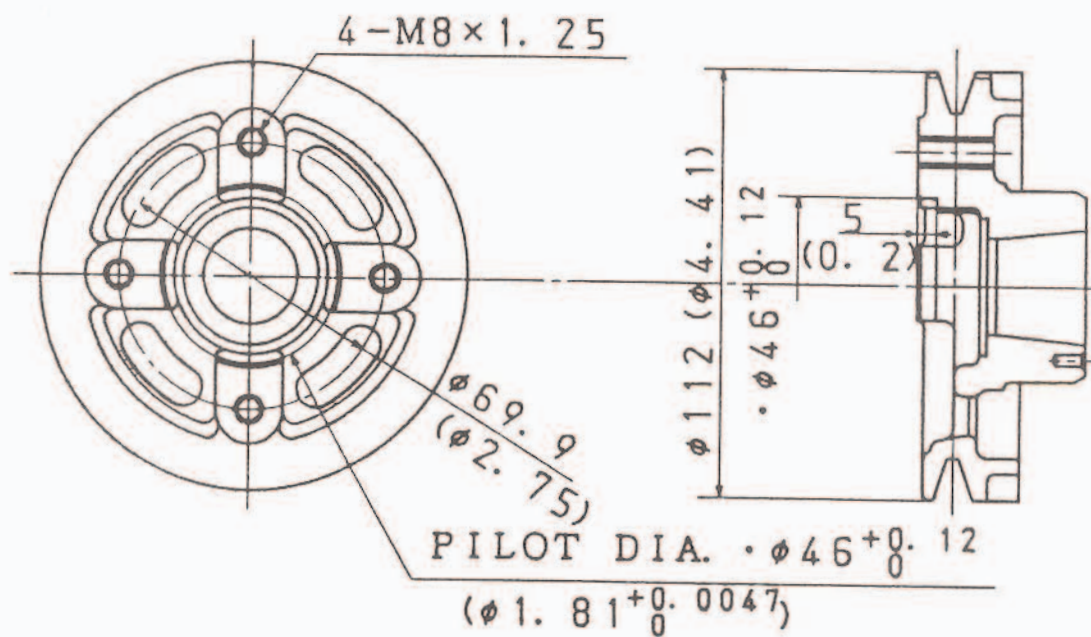
UNIT : mm (inch)

425mm
RADIATOR (mounted to 950DT)



UNIT : mm (inch)

Front Crankshaft Pulley

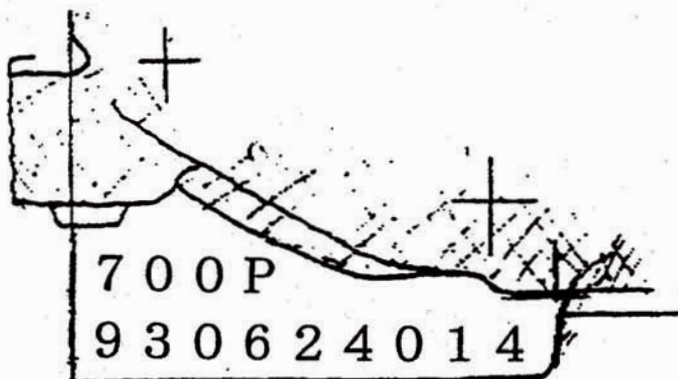


Dimensions : mm (inch)

ENGINE IDENTIFICATION

A type and individual serial number is stamped into a protruding section of the cylinder block head gasket surface at the flywheel / intake side corner.

Example:



700P: 700cc, "P" = Gaseous fueled engine

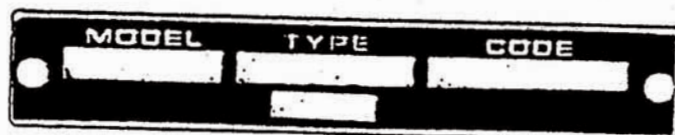
93 year

06 month

24 day

014 serial number

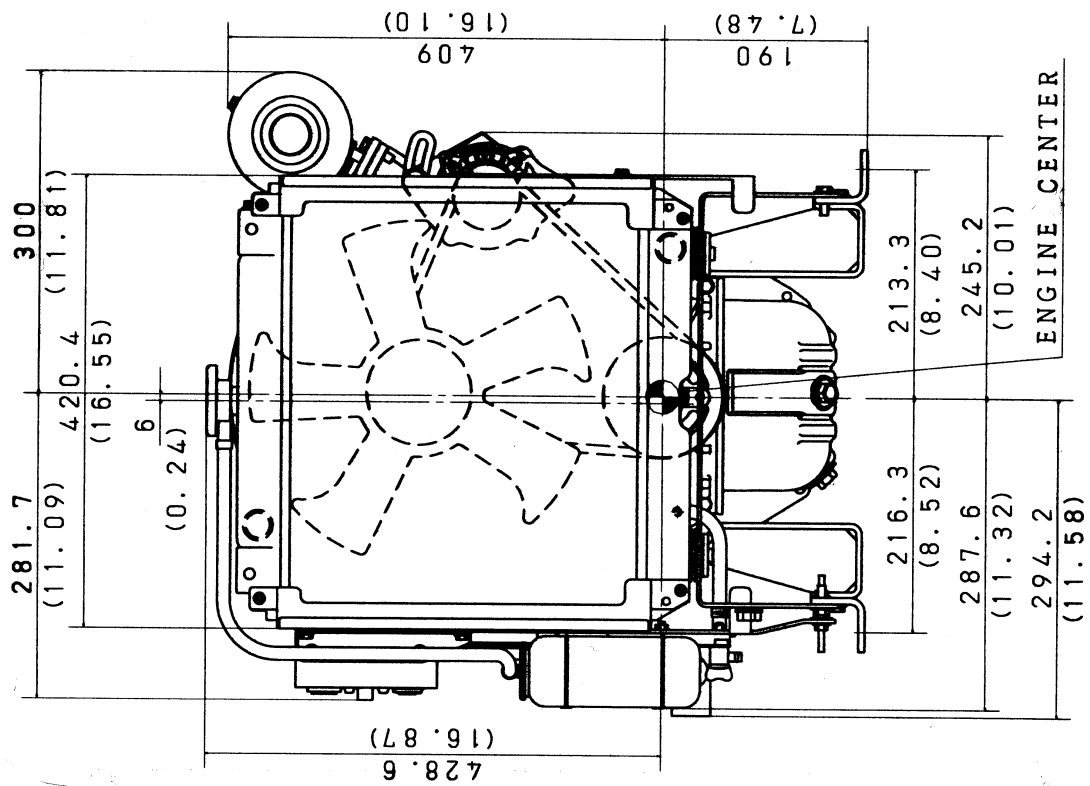
Model Type-Trim



MODEL-TYPE-TRIM decal on
Rocker arm cover

NEW POWER UNIT (RAIL MOUNT TYPE) WITHOUT SAE HOUSING 950G

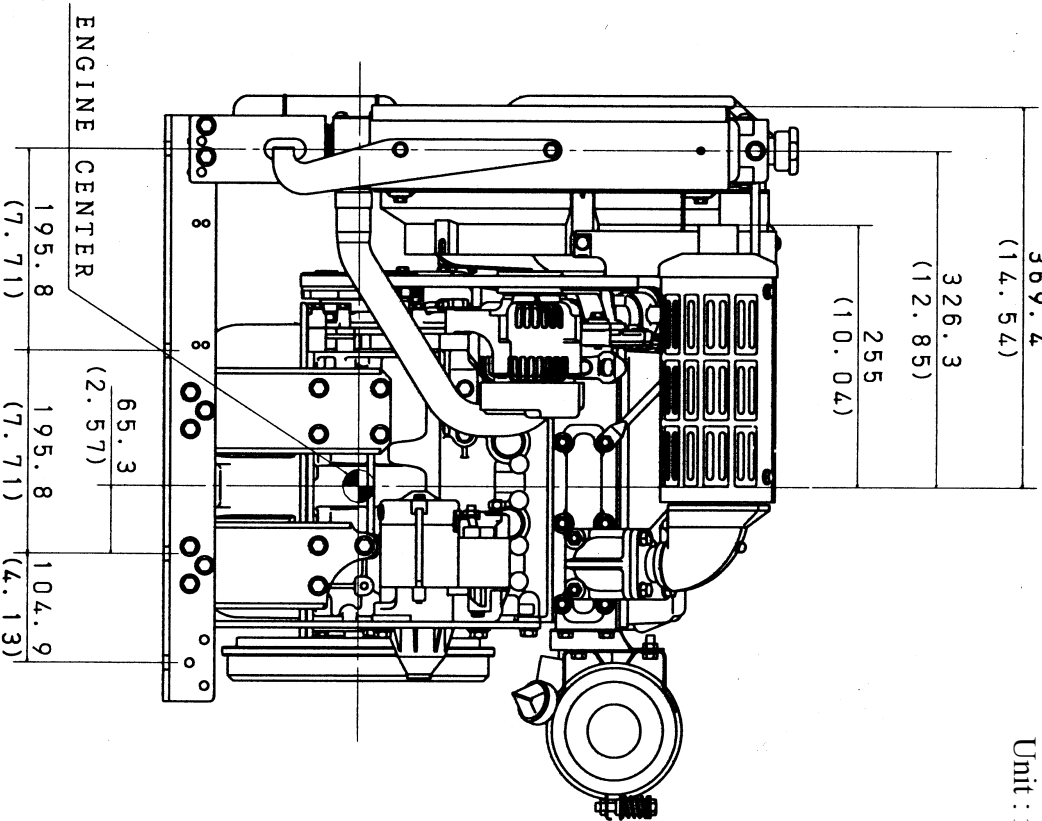
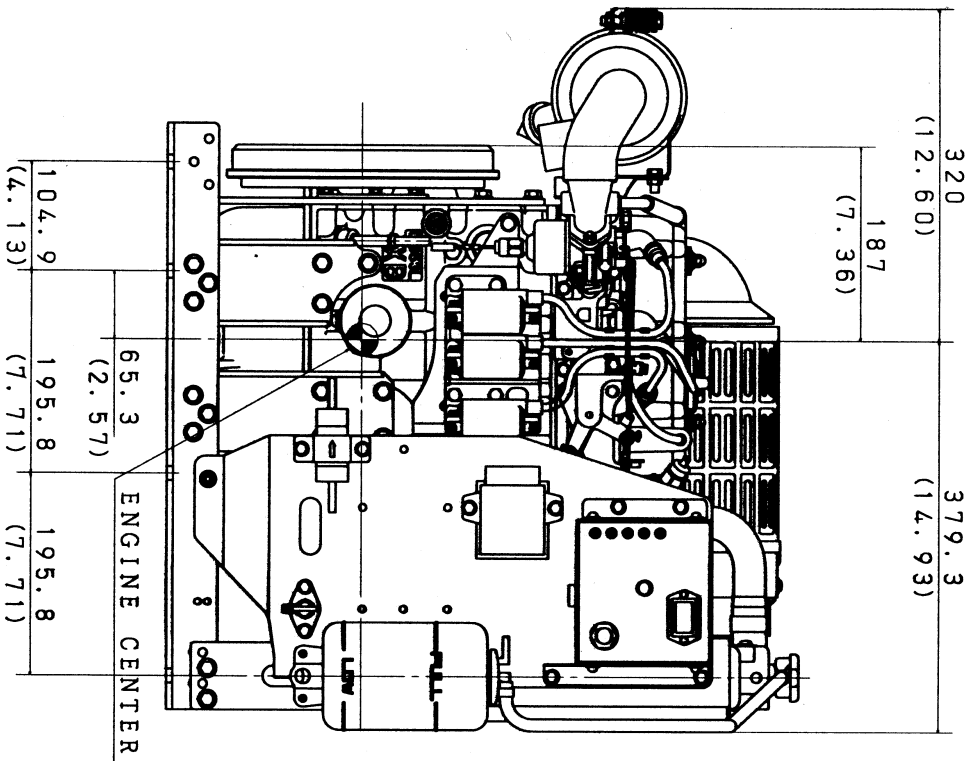
Unit : mm(inch)



2/7/03

NEW POWER UNIT (RAIL MOUNT TYPE) WITHOUT SAE HOUSING 950G

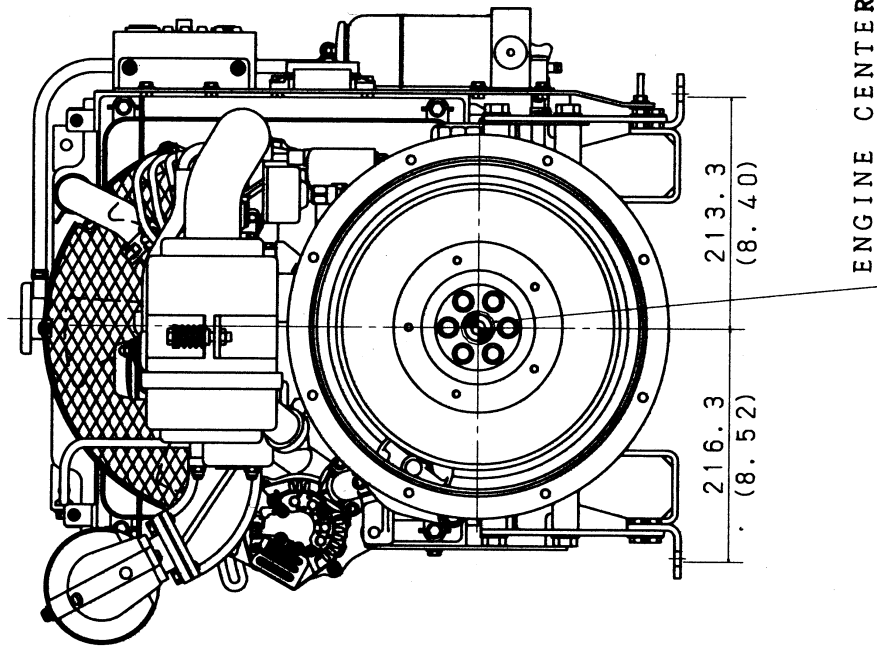
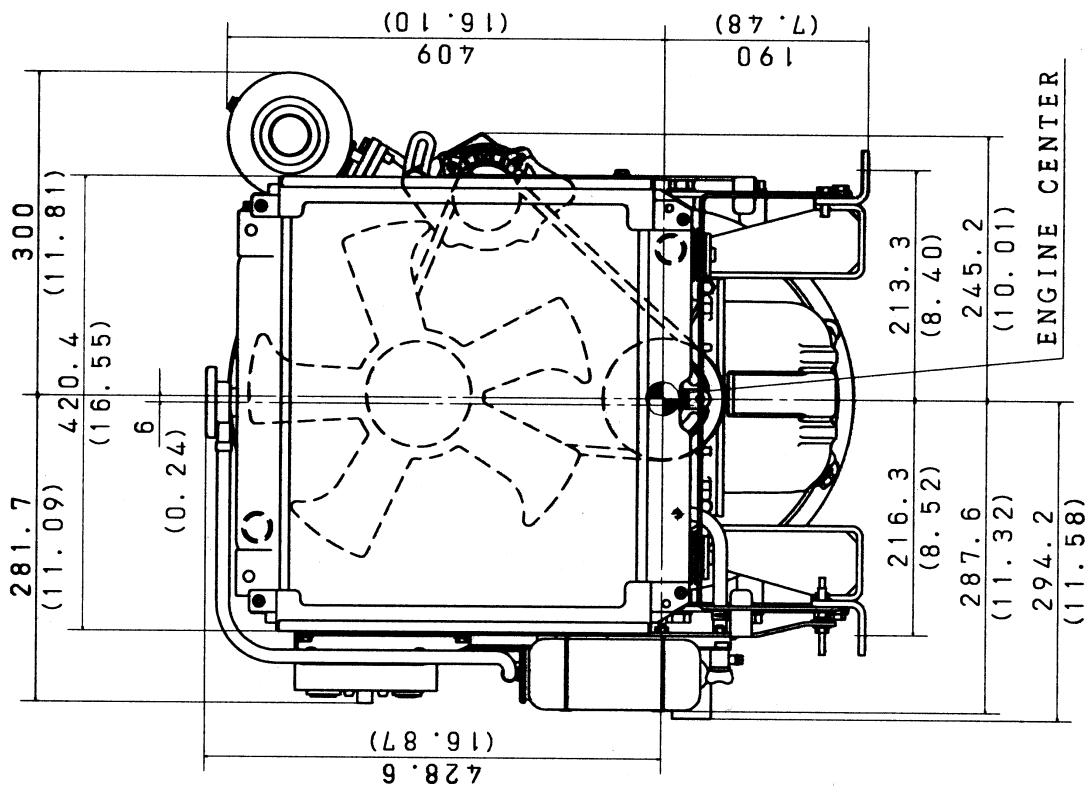
Unit : mm(inch)



NEW POWER UNIT (RAIL MOUNT TYPE) WITH SAE HOUSING

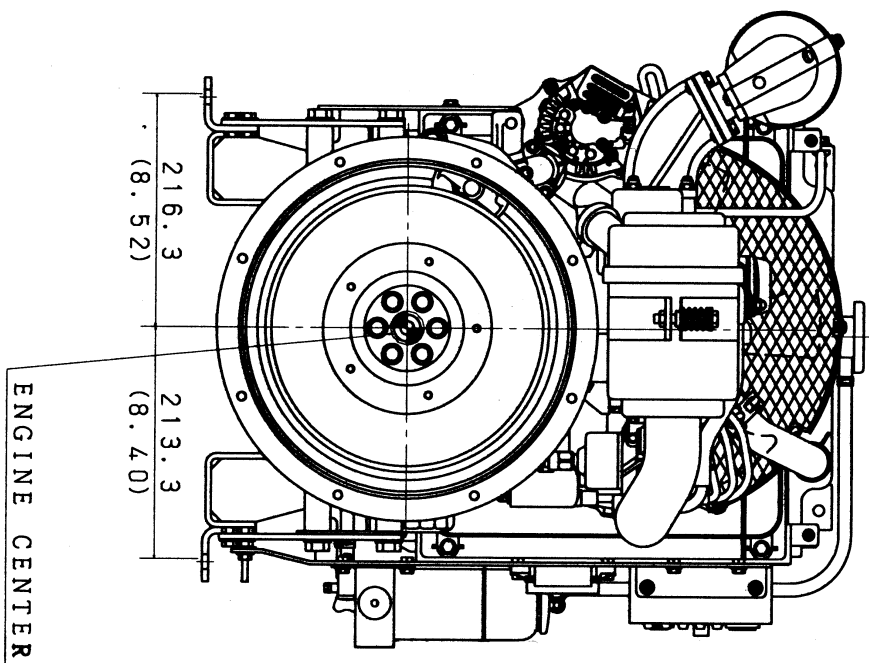
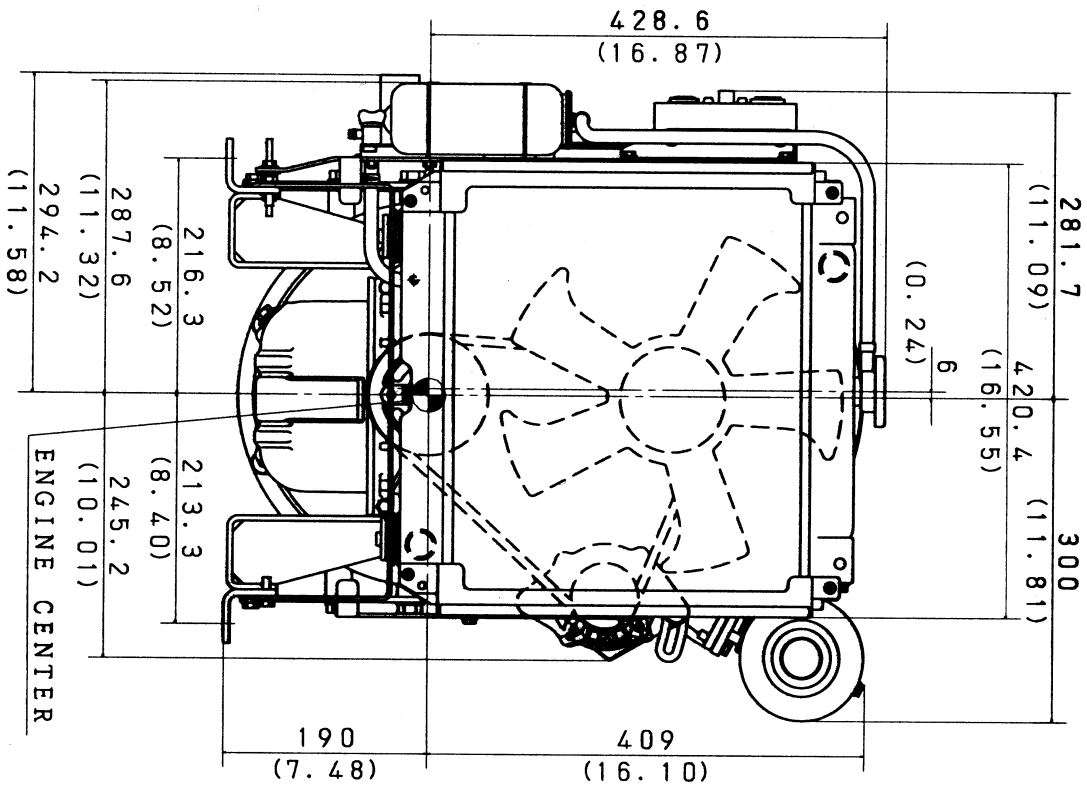
950G

Unit : mm(inch)



NEW POWER UNIT (RAIL MOUNTS TYPE) WITH SAE HOUSING 950G

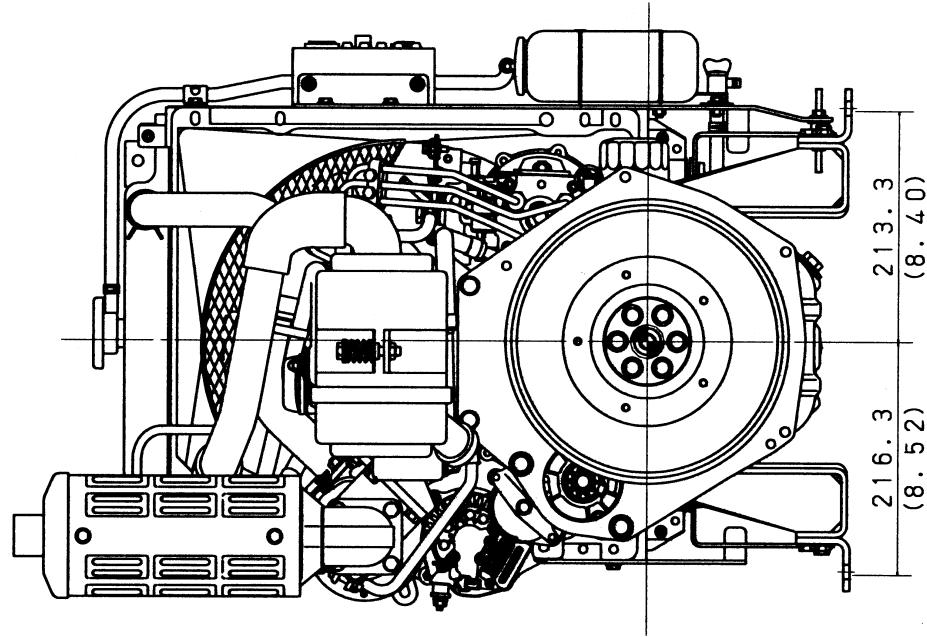
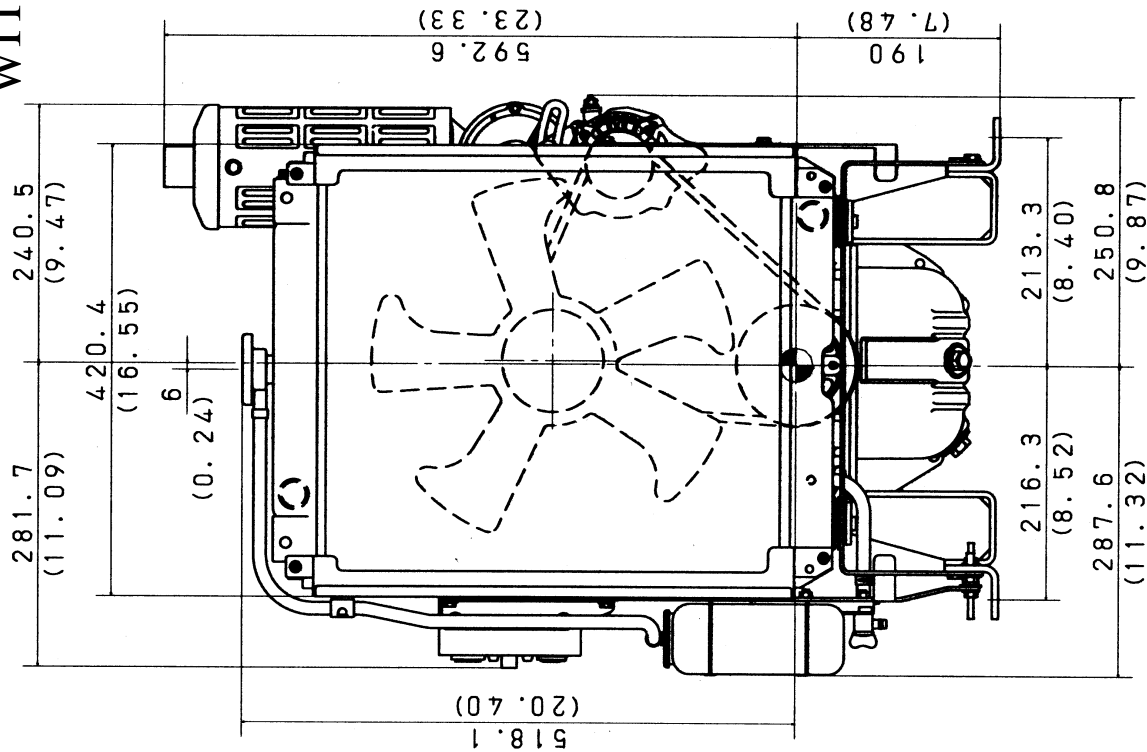
Unit : mm(inch)



2/7/03

NEW POWER UNIT (RAIL MOUNT TYPE) WITHOUT SAE HOUSING 950DT

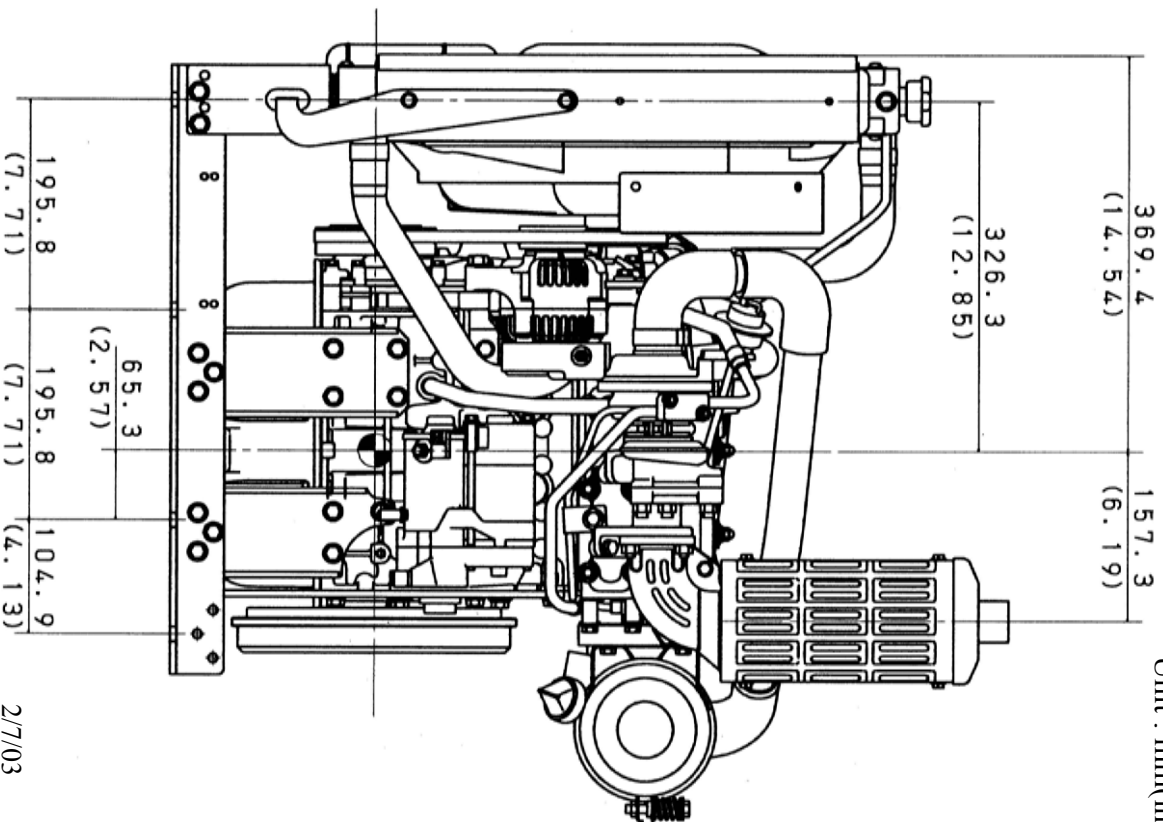
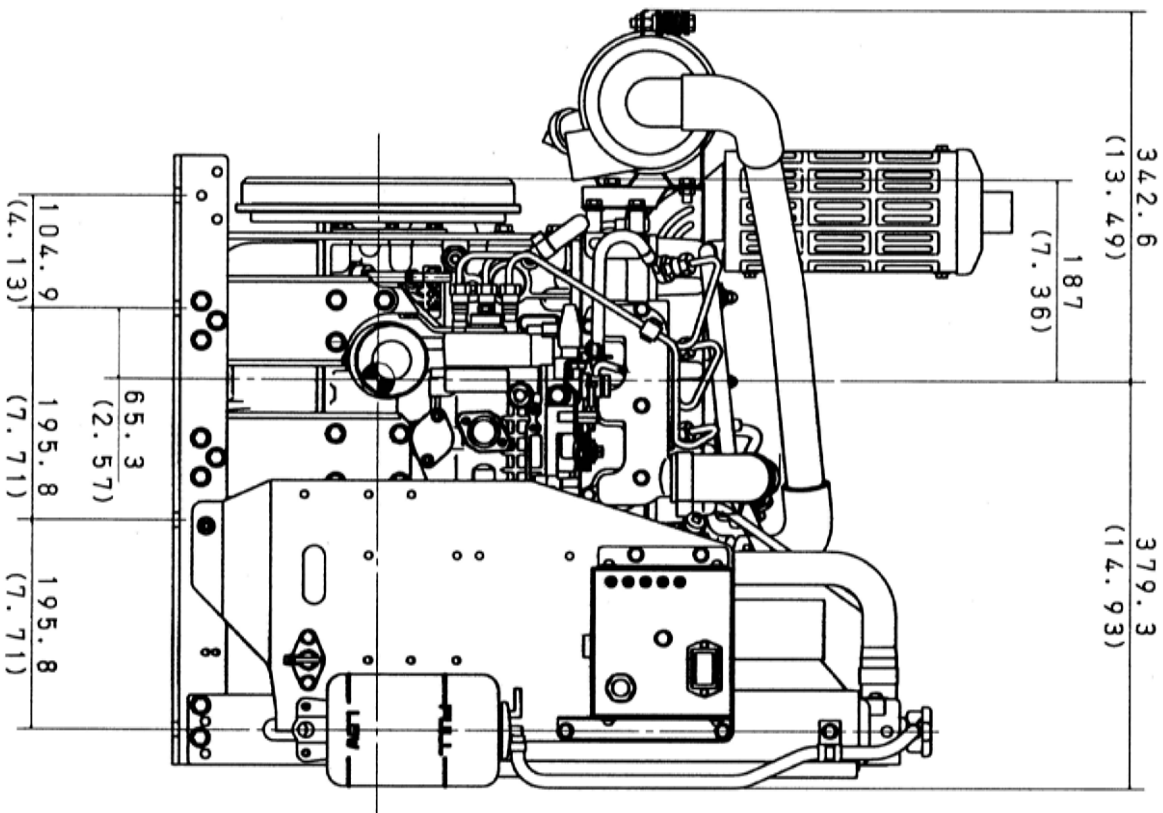
Unit : mm(inch)



NEW POWER UNIT (RAIL MOUNT TYPE) WITHOUT SAE HOUSING

950DT

Unit : mm(inch)

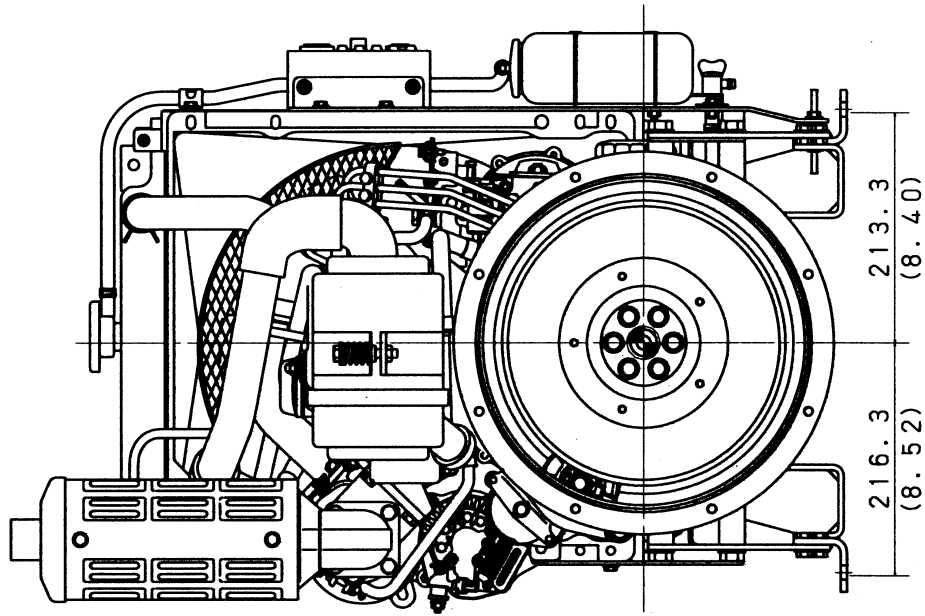
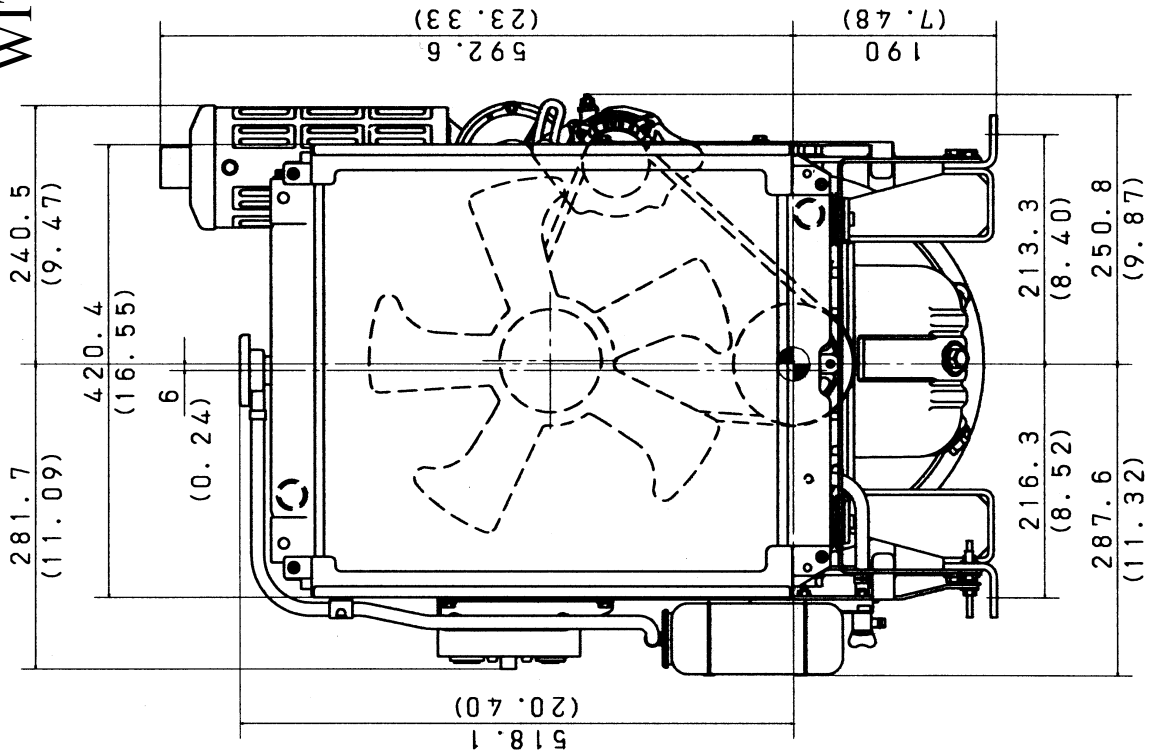


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NEW POWER UNIT (RAIL MOUNT TYPE) WITH SAE HOUSING

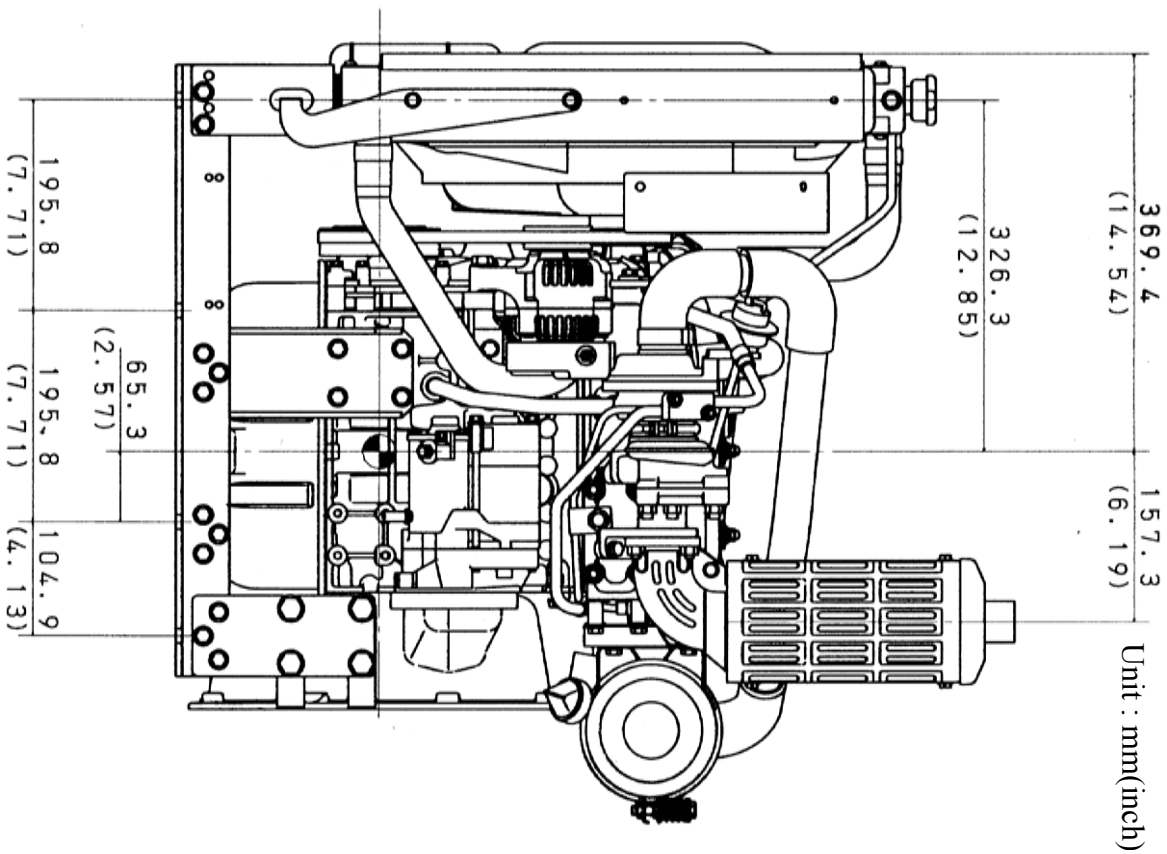
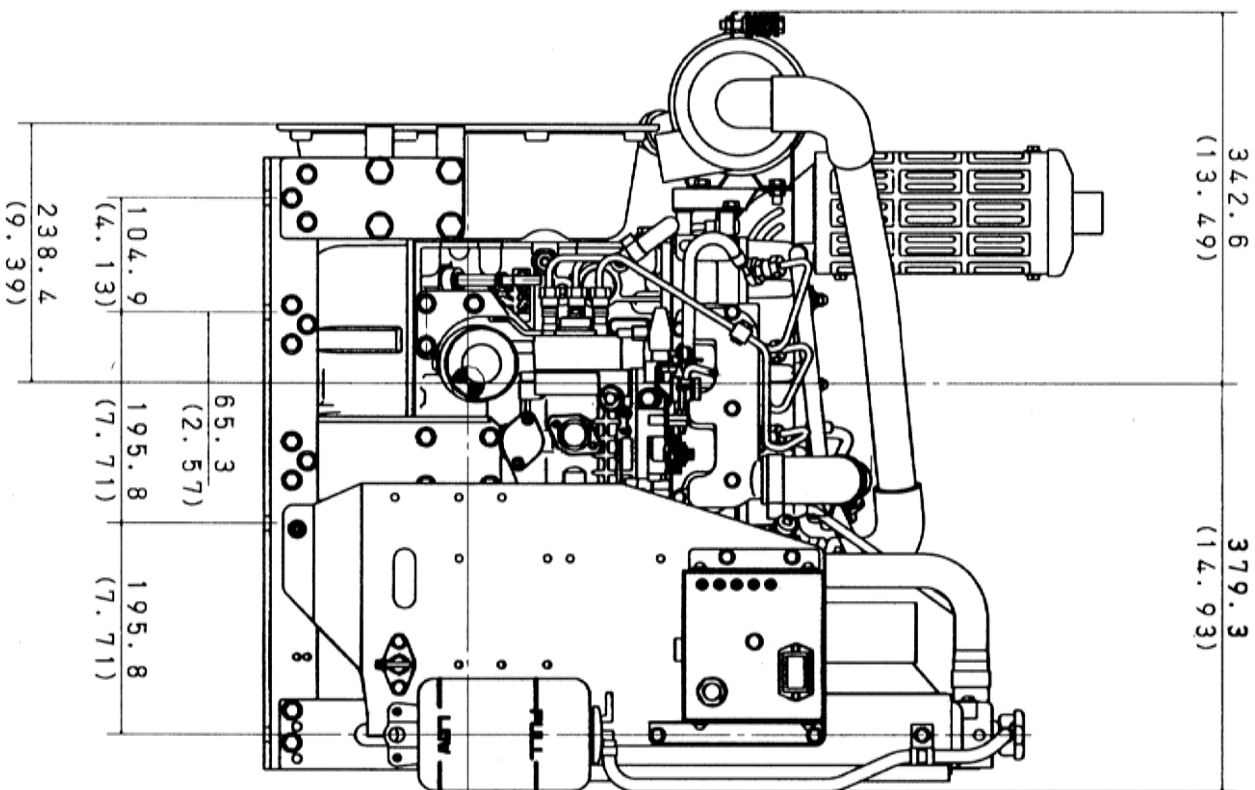
950DT

Unit : mm(inch)



2/7/03

NEW POWER UNIT (RAIL MOUNT TYPE) WITH SAE HOUSING 950DT



GENERAL INFORMATION - SPARK IGNITION ENGINES

Engine Model		DM700G	DM950G	DM954G	DM950P	DM954P
Type		Gasoline, 4-cycle				
Cylinder number & Arrangement		3-cylinder-in-line				
Combustion chamber type		Bathtub				
Valve mechanism		OHV, gear driven				
Bore x Stroke mm (in)		68 x 64 (2.68 x 2.52)	72 x 78 (2.83 x 3.07)			
Displacement cc (cub-in)		697 (42.5)	953 (58.1)			
Kind of fuel		Gasoline			NG or LPG	
Firing order		1-2-3				
Compression ratio		8.6:1	8.7:1	9.5:1	8.7:1	9.5:1
Compression pressure kPa-rpm {kg/cm ² -rpm} (psi-rpm)	Standard value	1,323.9-400 {13.5-400} (192.0-400)	1,372.9-400 {14.0-400} (199.1-400)	1,471.0-400 {15.0-400} (213.3-400)	1,372.9-400 {14.0-400} (199.1-400)	1,471.0-400 {15.0-400} (213.3-400)
	Allowable limit	980.7-400 {10.0-400} (142.2-400)	1,029.7-400 {10.5-400} (149.3-400)	1,078.7-400 {11.0-400} (156.5-400)	1,029.7-400 {10.5-400} (149.3-400)	1,078.7-400 {11.0-400} (156.5-400)
Maximum output (gross) SAE Kw/rpm		18.3/3,600	23.1/3,600	25.4/3,600	20.0/3,600	21.4/3,600
Maximum torque (gross) SAE N-m/rpm		50.8/2,200	70.0/2,200	76.2/2,200	62.3/2,200	64.4/2,200
Direction of rotation		Counterclockwise (Viewed from flywheel)				
Engine dimensions [Length x Width x Height] mm (in)		441.8 x431.2 x 491.9 (17.39 x 16.98 x 19.37)	441.8 x433.2 x 501.4 (17.39 x 17.06 x 19.74)			
Dry weight kg (lb)		63 (138.9)	65 (143.3)			

GENERAL INFORMATION - SPARK IGNITED ENGINES

Maintenance Schedule

More frequent service is required when operating in adverse conditions (note 4 below).

	Maintenance Operation	Daily	Every 50 hours	Every 100 hours	Every 200 hours	Every 600 hours	Yearly
Lubrication System	Check oil level	•					
	Check for oil leaks	•					
	Change oil		• 1		• 2, 4		
	Change oil filter		• 1		• 2, 4		
Cooling System	Check coolant	•					
	Change coolant						•
	Check fan belt			•			
Engine	Service air cleaner		• 1	• 2, 4		• 3, 4	
	Check valve clearance					•	
Electrical System	Check battery electrolyte				•		
	Change spark plugs						•
Fuel System	Change fuel filter					•	

- 1 Perform first maintenance operation after 50 hours.
- 2 Then perform maintenance operation at this interval.
- 3 Replace after every 600 hours of operation.
- 4 Service more often when operating under heavy load or in high temperatures.

GENERAL INFORMATION - NATURALLY ASPIRATED DIESEL ENGINES

Engine proper	Engine type		700D	850D	950D
	Type		Diesel, 4-cycle		
	Cylinder No. and arrangement		3-cylinder-in-line		
	Combustion chamber type		Swirl chamber type		
	Valve mechanism		Gear-driven overhead valve		
	Bore x stroke	mm (in)	68 x 64 (2.68 x 2.52)	68 x 78 (2.68 x 3.07)	72 x 78 (2.83 x 3.07)
	Displacement	cc (cub-in)	697 (42.5)	850 (52.0)	953 (58.1)
	Kind of fuel		Diesel fuel (Cetane number 40 or higher)		
	Firing order		1-2-3		
	Compression ratio		24.0	24.4	24.8
	Compression pressure kg/cm ² -rpm (psi-rpm)	Standard value	35-300 (498-300)	36-300 (512-300)	37-300 (526-300)
		Allowable limit	27-300 (384-300)	27-300 (384-300)	27-300 (384-300)
	Maximum output (Intermittent)	SAE kw/rpm (Net)	12.0/3,600	15.0/3,600	17.7/3,600
	Maximum torque (Intermittent)	SAE Nm/rpm (Net)	37.0/2,800	47.0/2,400	54.0/2,600
	Direction of rotation		Counterclockwise (Viewed from flywheel)		
	Engine dimensions [Length x Width x Height] mm (in)		See Table (3)		
	Dry weight		76 (168)	78 (172)	78 (172)

GENERAL INFORMATION - TURBOCHARGED DIESEL ENGINES

ENGINE SPECIFICATIONS (2)

Engine proper	Engine type		950DT	954DT
	Type		Diesel, 4-cycle	
	Cylinder No. and arrangement		3-cylinder-in-line	
	Combustion chamber type		Swirl chamber type	
	Valve mechanism		Gear-driven overhead valve	
	Bore x stroke	mm (in)	72 x 78 (2.83 x 3.07)	
	Displacement	cc (cub-in)	953 (58.1)	
	Kind of fuel		Diesel fuel (Cetane number 40 or higher)	
	Firing order		1-2-3	
	Compression ratio		24.8	
	Compression pressure kg/cm ² -rpm (psi-rpm)	Standard value	37-300 (526-300)	
		Allowable limit	27-300 (384-300)	
	Maximum output (Intermittent)	SAE kw/rpm (Net)	20.9/3,600	23.1/3,600
	Maximum torque (Intermittent)	SAE Nm/rpm (Net)	66.8/2,400	72.1/2,400
	Direction of rotation		Counterclockwise (Viewed from flywheel)	
	Engine dimensions [Length x Width x Height] mm (in)		See Table (3)	
	Dry weight		89 (196)	

GENERAL INFORMATION - DIESEL ENGINES

MAINTENANCE SCHEDULE

More frequent service is required when operating in adverse conditions (note below).

System	Maintenance Operation	Daily	Every 50 hours	Every 100 hours	Every 150 hours	Every 200 hours	Every 600 hours	Every 800 hours	Yearly
Lubrication system	Check oil level	•							
	Check for oil leaks	•							
	Change oil		•1		•2				•5
	Change oil filter		•1		•2				
Cooling system	Check coolant	•							
	Change coolant								•
	Check fan belt			•					
Engine	Service air cleaner		•1	•2,4			•3,4		
	Check cylinder head bolt torque						•		
	Check valve clearance						•		
Electrical system	Check battery electrolyte					•			
Fuel system	Change fuel filter element							•6	

1. Perform first maintenance operation after 50 hours.
2. Then perform maintenance operation at this interval.
3. Replace after every 600 hours of operation.
4. Service more often when operating under heavy load or in high temperatures.
5. Perform maintenance annually if operated less than 100 hours.
6. Follow manufacturer's maintenance schedule if non-B&SD approved part is used.