

## Nearly a Century of Compact Diesel Engine Innovation, Value and Leadership

YANMAR introduced the world's first compact diesel engine in 1933 thus revolutionizing the concept of reliable and efficient compact diesel power. Nearly 100 years later, YANMAR has grown in to a diversified manufacturer with a portfolio of products that serve ever growing global demand in the following industries:

### Components - Industrial - Agricultural - Marine - Energy

YANMAR products continue to be sought after worldwide by customers based on our reputation for innovation, unmatched quality, high reliability, environmental stewardship and our focus on the customer and the environment.

## Thinking Outside the Box

YANMAR compact diesel engines are available in single, two, three and four cylinder configurations with output ratings ranging from 4.7 through 83.5 horsepower. YANMAR is proud to claim that we maintain in-house control and expertise in



engine and engine component design and manufacturing which allow YANMAR to offer compact diesel engines characterized by:

- Compact Size
- Low Noise and Vibration
- Superior Fuel Economy
- Emissions Compliance
- Reliability and Durability

## Environmentally Focused

YANMAR's commitment to a greener environment extends beyond clean, quiet, compact diesel engines. It's inherent in our culture and our commitment of "Grateful to serve for a better world." All YANMAR facilities make every effort to reduce air, water and noise pollution and recycle waste materials.

## Quality Counts Most

Throughout nearly a century of growth and success YANMAR has never lost sight of its mission: "To be an innovator and leader in harnessing energy through the delivery of unrivaled products and services." As a result, the company's reputation for quality and dedication to customer satisfaction, across the board, is second to none.

Attesting to its strict adherence to the industry's best practices and highest quality standards, every one of YANMAR's manufacturing plants is ISO 9001 certified. Additionally, the company is proud to have been awarded the Deming Prize – the apex of manufacturing excellence.

Backed by a significant investment in R&D, YANMAR research centers are continually exploring innovative new technologies and methods for making diesel power not only more affordable, but also reliable and user friendly.

Combining its rich heritage for building trust with a sharp focus on producing diesel engines and energy systems in tune with the needs of a more environmentally conscious society, YANMAR is well-prepared for meeting the challenges of tomorrow.

## Global Reach

YANMAR is constantly expanding in order to keep its manufacturing centers close to its customers.

Organized into six sales companies and ten manufacturing companies, YANMAR is an integrated global network of technical centers, engine plants and strategically positioned parts depots, including operations in the United States.

### YANMAR America Corporation

101 International Parkway, Adairsville, GA 30103-2028, USA  
Tel: +1-770-877-9894 [www.yanmar.com](http://www.yanmar.com)

### YANMAR Europe B.V.

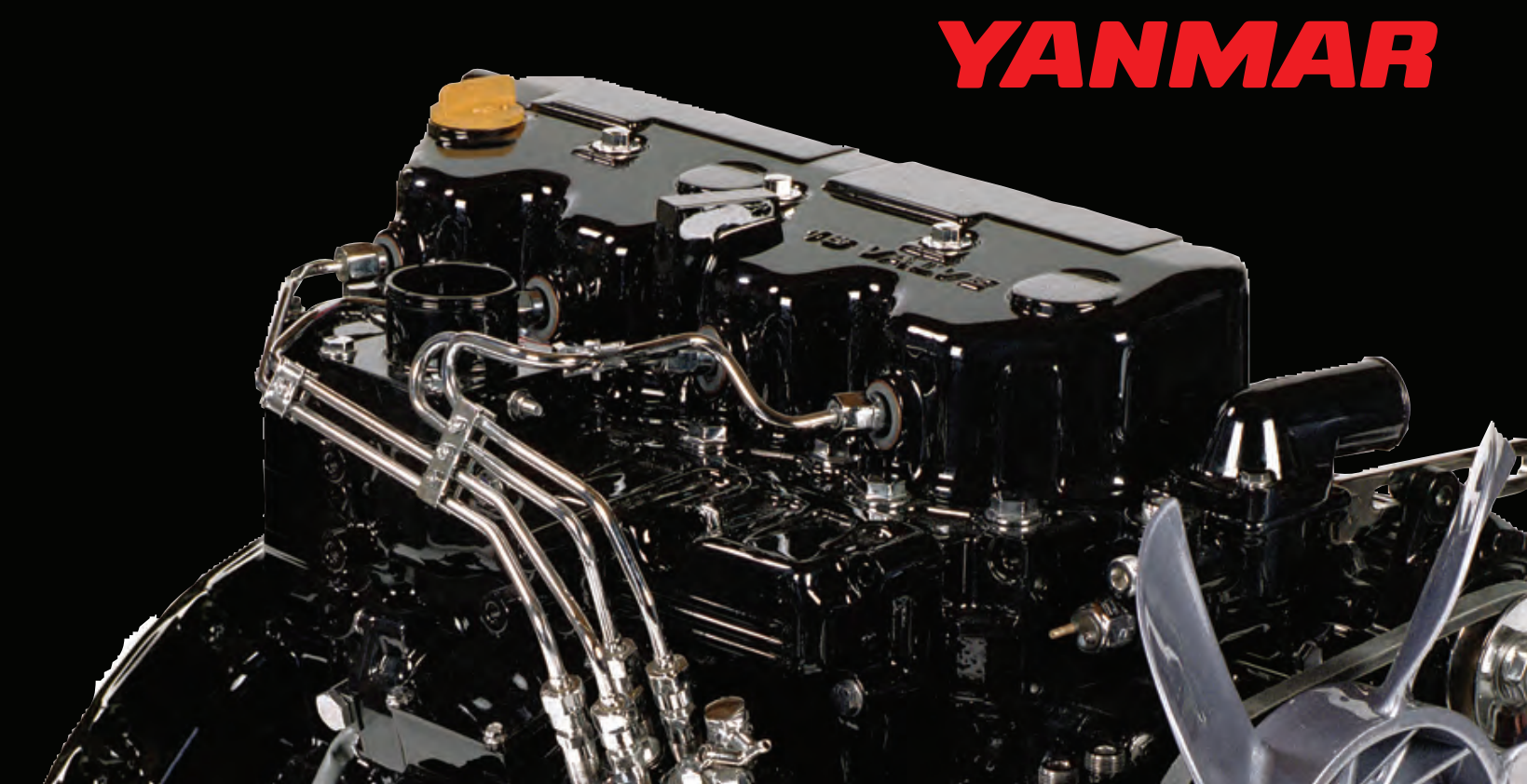
Brugplein 11, 1332 BS Almere (de Vaart), The Netherlands  
Tel: +31-36-5493200 [www.yanmar.nl](http://www.yanmar.nl)

### YANMAR Asia (Singapore) Corporation PTE. Ltd.

4 Tuas Lane, Singapore 638613  
Tel: +65-6595-4200 [www.yanmar.co.jp/yasc](http://www.yanmar.co.jp/yasc)

### YANMAR CO., LTD.

1-32, Chayamachi, Kita-Ku, Osaka 530-8311, Japan  
Tel: +81-6-6376-6414 [www.yanmar.co.jp](http://www.yanmar.co.jp)



L-V Series

MINIMAX Series

TNV Series

TNV Gen Drives

YDG Series

## Nearly a Century of Innovation and Leadership

In 1912 automobile manufacturing, as we know it, was in its infancy; the move to mechanize farming, boating, construction and a host of other industries was just beginning to gain momentum. Yet in Japan, a young, family-owned company named YANMAR was already establishing itself as a leading engine maker – not only by building a quality product, but also by building trust.

From the company's humble beginnings in Osaka, Japan, YANMAR's founders saw opportunity for growth – built on the simple concept of working with others to produce the compact and efficient engines and implements that would power our world.

Today, through enduring business relationships forged across more than 130 countries, YANMAR's motto of "Grateful to serve for a better world" is more relevant than ever.





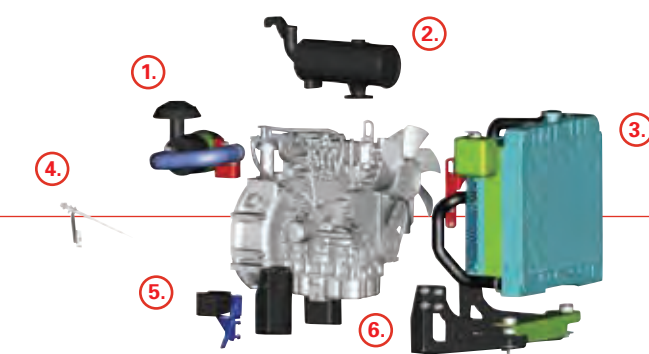
These single-cylinder, air-cooled direct injection diesel engines are EPA & CARB exhaust emission compliant and utilize a counter-balancing system for smooth, high speed operation. Multiple PTO shaft are available along with electric or recoil starting. Three power levels are offered.



Big power from a small package offers Tier 4 compliance right out of the box. The first ladder frame cylinder block in its class allows the MINIMAX Series to produce less noise and vibration than competing engines. Its perfect size means ease of installation into a variety of equipment.



The Total New Value (TNV) engine series already conforms to the strict EC (European) and EPA (USA) emission regulations. All TNV engines are in 2, 3 and 4-cylinder versions, four-cycle, water-cooled, inline configuration. TNV engines are utilizing naturally aspirated and indirect fuel injection system for the power ranges from 13.7 hp to 25.0 hp. For the higher power range of 30.2 hp to 83.5 hp, naturally aspirated or turbocharged with direct fuel injection system are configured. All TNV series engines offer an electric start function.



## L-V SERIES

Model – Modelo – Modèle	L70V	L100V
Cylinders – Cilindros – Nombre de Cylindres	1	
Bore x Stroke, inches	3.0 x 2.6	3.4 x 2.9
Diámetro x Carrera, mm – Alésage x Course, mm	78 x 67	86 x 75
Displacement, in³	19.5	26.6
Cilindrada, cc – Cylindrée, cc	320	435
Combustion Type	Direct Injection	
Tipo de Combustión – Type de Combustion	Inyección Directa – Injection Directe	
Aspiration	Natural Aspiration	
Aspiración – Aspiration	Aspiración Natural – Non Suralimenté	
Net Intermittent Hp	6.4	9.1
Potencia Neta Intermitente, kW – Puissance Intermittente net, kW	4.8	6.8
Rated Speed, rpm	3600	
Velocidad de Régimen, rpm – Vitesse nominale, rpm	3600	
Governor Type	Mechanical	Mechanical
Tipo de Gobernador	Mecánico	Mecánico
Type de Gouverneur	Mécanique	Mécanique
Length, inches	14.9	16.4
Longitud, mm – Longueur, mm	378.2	417.0
Width, inches	16.6	18.5
Ancho, mm – Largeur, mm	422.0	470.5
Height, inches	17.8	19.4
Alto, mm – Hauteur, mm	453.0	493.0
Dry Weight, lbs. (Recoil Start)	78	106
(Arranque Manual) Peso en Seco, kg	35.5	48.0
Poids à sec, kg (Démarriage manuel)		
Dry Weight, lbs. (Electric Start)	88	120
(Arranque Eléctrico) Peso en Seco, kg	40.0	54.5
Poids à sec, kg (Démarriage électrique)		

## MINIMAX

Model – Modelo – Modèle	3TNM68	3TNM72
Cylinders – Cilindros – Nombre de Cylindres	3	3
Bore x Stroke, inches	2.7 x 2.8	2.8 x 2.9
Diámetro x Carrera, mm	68 x 72	72 x 74
Alésage x Course, mm		
Displacement, in³	47.8	55.1
Cilindrada, cc – Cylindrée, cc	784	903
Combustion Type	Indirect Injection	
Tipo de Combustión	Inyección Indirecta	
Type de Combustion	Injection Indirecte	
Aspiration	Naturally Aspirated	
Aspiración – Aspiration	Aspiración Natural – Non Suralimenté	
Net Intermittent Hp	18.9	23.6
Potencia Neta Intermitente, kW	14.1	17.6
Puissance Intermittente net, kW		
Rated Speed, rpm	3600	
Velocidad de Régimen, rpm	3600	
Vitesse nominale, rpm		
Governor Type	Mechanical	Mechanical
Tipo de Gobernador	Mecánico	Mecánico
Type de Gouverneur	Mécanique	Mécanique
Length, inches	17	17.7
Longitud, mm – Longueur, mm	431	450
Width, inches	15.7	15.7
Ancho, mm – Largeur, mm	400	400
Height, inches	19.7	19.9
Alto, mm – Hauteur, mm	500	505
Dry Weight, lbs.	161	190
Peso en Seco, kg – Poids à sec, kg	73	77

## TNV SERIES

Model – Modelo – Modèle	2TNV 70	3TNV 70	3TNV 70	3TNV 76	3TNV 76	3TNV 82A	3TNV 82A	3TNV 82A	3TNV 84T	3TNV 84T	3TNV 84T	3TNV 88	3TNV 88	3TNV 88	4TNV 84T	4TNV 84T	4TNV 84T	4TNV 88	4TNV 88	4TNV 88	4TNV 98	4TNV 98T	
Specification – Especificación – Spécification	ASA	ASA	ASA3	CSA	CSA3	BDSA	BDSA2	BDSA3	BKSA	BKSA2	BKSA3	BDSA	BDSA2	BDSA3	ZDSA	ZDSA2	ZDSA3	BDSA	BDSA2	BDSA3	ZNSA	ZNSA	
Cylinders – Cilindros – Nombre de Cylindres	2	3			3	3			3			3			4			4			4		
Bore x Stroke, inches	2.8 x 2.9	2.8 x 2.9			3.0 x 3.2	3.2 x 3.3			3.3 x 3.5			3.4 x 3.5			3.3 x 3.5			3.4 x 3.5			3.9 x 4.3		
Diámetro x Carrera, mm	70 x 74	70 x 74			76 x 82	82 x 84			84 x 90			88 x 90			84 x 90			88 x 90			98 x 110		
Alésage x Course, mm																							
Displacement, in³	34.8	52.1			68.1	81.2			91.3			100.2			121.7			133.6			202.5		
Cilindrada, cc – Cylindrée, cc	570	854			1116	1330			1496			1642			1995			2189			3318		
Combustion Type	Indirect Injection											Direct Injection						Direct Injection					
Tipo de Combustión	Inyección Indirecta – Injection Indirecte											Inyección Directa – Injection Directe						Inyección Directa – Injection Directe					
Type de Combustion	Inyección Indirecta – Injection Indirecte											Inyección Directa – Injection Directe						Inyección Directa – Injection Directe					
Aspiration	Naturally Aspirated											Naturally Aspirated		Turbo Charged		Naturally Aspirated		Turbo Charged		Naturally Aspirated		Naturally Aspirated	Turbo Charged
Aspiración – Aspiration	Aspiración Natural – Non Suralimenté											Aspiración Natural – Non Suralimenté		Turbo cargado – Turbocompresé		Aspiración Natural – Non Suralimenté		Turbo cargado – Turbocompresé		Aspiración Natural – Non Suralimenté		Aspiración Natural – Non Suralimenté	Turbocargado – Turbocompresé
Net Intermittent Hp	13.7	21.9		25.0		30.2		38.9		35.9		55.2		47.5		67.7	83.5						
Potencia Neta Intermitente, kW	10.2	16.3		18.6		22.5		29.0		26.8		41.2		35.4		50.1	62.3						
Puissance Intermittente net, kW																							
Rated Speed, rpm	3600		3600		3200		3000		2800		3000		3000		2500		2500						
Velocidad de Régimen, rpm	3600		3600		3200		3000		2800		3000		3000		2500		2500						
Vitesse nominale, rpm																							
Governor Type	Mechanical											Electric				Mechanical		Electric					
Tipo de Gobernador	Mecánico – Mécanique											Eléctrico – Électrique				Mecánico – Mécanique		Eléctrico – Électrique					
Type de Gouverneur	Mecánico – Mécanique											Eléctrico – Électrique				Mecánico – Mécanique		Eléctrico – Électrique					
Length, inches	16.3	20.8	19.8	22.4	21.4	23.0	21.3	21.0	24.7	23.0	23.0	24.7	23.0	22.6	28.4	26.7	26.3	28.4	26.7	26.3	29.8	29.8	
Longitud, mm – Longueur, mm	414.0	528.3	502.9	568.9	543.6	584.2	541.0	533.4	627.4	584.2	584.2	627.4	584.2	574.0	721.4	678.2	668.0	721.4	678.2	668.0	756.9	756.9	
Width, inches	16.5	16.8	16.8	16.8	16.8	20.0	20.0	20.0	20.2	20.2	20.2	20.2	20.2	20.2	20.5	20.5	20.5	20.2	20.2	20.2	21.9	21.9	
Ancho, mm – Largeur, mm	417.8	426.7	426.7	426.7	426.7	508.0	508.0	508.0	513.1	513.1	513.1	513.1	513.1	513.1	520.7	520.7	520.7	513.1	513.1	513.1	556.3	556.3	
Height, inches	20.6	21.5	21.5	22.6	22.6	24.0	24.0	24.0	27.4	27.4	27.4	26.2	26.2	26.2	28.0	28.0	28.0	25.5	25.5	25.5	33.0	33.0	
Alto, mm – Hauteur, mm	523.2	546.1	546.1	574.0	574.0	609.6	609.6	609.6	695.9	695.9	695.9	665.5	665.5	665.5	711.2	711.2	711.2	647.7	647.7	647.7	838.2	838.2	
Dry Weight, lbs.	185	220	198	243	198	282	282	282	355	355	355	342	342	342	397	397	397	375	375	375	518	540	
Peso en Seco, kg – Poids à sec, kg	83.9	99.8	89.8	110.2	89.8	127.9	127.9	127.9	161.0	161.0	161.0	155.1	155.1	155.1	187.1	187.1	187.1	170.1	170.1	170.1	234.9	244.9	

SA = Flywheel / flywheel housing SA2 = Semi - flywheel housing SA3 = Flywheel / backplate

## TNV GEN DRIVES

Model – Modelo – Modèle	2TNV 70	3TNV 70	3TNV 70	3TNV 76	3TNV 76	3TNV 82A	3TNV 84T	3TNV 88	4TNV 84T	4TNV 88	4TNV 88	4TNV 98	4TNV 98T	
Specification – Especificación – Spécification	HGE	GGE	HGE	GGE	HGE	GGE	BGGE	BGGE	BGGE	BGGE	BGGE	ZGGE	ZGGE	
Cylinders – Cilindros – Nombre de Cylindres	2	3			3	3	3	3	4	4	4	4		
Bore x Stroke, inches	2.8 x 2.9	2.8 x 2.9			3.0 x 3.2	3.2 x 3.3	3.3 x 3.5	3.4 x 3.5	3.3 x 3.5	3.4 x 3.5	3.9 x 4.3			
Diámetro x Carrera, mm	70 x 74	70 x 74			76 x 82	82 x 84	84 x 90	88 x 90	84 x 90	88 x 90	98 x 110			
Alésage x Course, mm														
Displacement, in³	34.8	52.1			68.1	81.2	91.3	100.2	121.7	133.6	202.5			
Cilindrada, cc – Cylindrée, cc	570	854			1116	1330	1496	1642	1995	2189	3318			
Combustion Type	Indirect Injection						Direct Injection			Direct Injection				
Tipo de Combustión	Inyección Indirecta – Injection Indirecte						Inyección Directa – Injection Directe			Inyección Directa – Injection Directe				
Type de Combustion	Inyección Indirecta – Injection Indirecte						Inyección Directa – Injection Directe			Inyección Directa – Injection Directe				
Aspiration	Naturally Aspirated						Naturally Aspirated		Turbo Charged		Naturally Aspirated		Naturally Aspirated	Turbo Charged
Aspiración – Aspiration	Aspiración Natural – Non Suralimenté						Aspiración Natural – Non Suralimenté		Turbocargado – Turbocompresé		Aspiración Natural – Non Suralimenté		Aspiración Natural – Non Suralimenté	Turbocargado – Turbocompresé
Net Intermittent Hp	13.4	10.7	21.5	14.3	26.1	17.7	25.2	21.7	35.9	29.0	54.7	67.2		
Potencia Neta Intermitente, kW	10.0	8.0	16.0	10.7	19.5	13.2	18.8	16.2	26.8	21.6	40.8	50.1		
Puissance Intermittente net, kW														
Rated Speed, rpm	3600	1800	3600	1800	3600	1800	1800	1800	1800	1800	1800	1800		
Velocidad de Régimen, rpm	3600	1800	3600	1800	3600	1800	1800	1800	1800	1800	1800	1800		
Vitesse nominale, rpm														
Governor Type	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Electric		
Tipo de Gobernador	Mecánico	Mecánico	Mecánico	Mecánico	Mecánico	Mecánico	Mecánico	Mecánico	Mecánico	Mecánico	Mecánico	Eléctrico		
Type de Gouverneur	Mécanique	Mécanique	Mécanique	Mécanique	Mécanique	Mécanique	Mécanique	Mécanique	Mécanique	Mécanique	Mécanique	Électrique		
Length, inches	16.3	21.5	21.5	22.3	22.3	21.8	23.5	23.5	27.2	27.2	31.1	31.1		
Longitud, mm – Longueur, mm	414.0	546.1	546.1	566.4	566.4	553.7	596.9	596.9	690.9	690.9	789.9	789.9		
Width, inches	16.5	16.8	16.8	16.8	16.8	20.0	20.2	20.2	20.5	20.2	21.9	21.9		
Ancho, mm – Largeur, mm	417.8	426.7	426.7	426.7	426.7	508.0	513.1	513.1	520.7	513.1	556.3	556.3		
Height, inches	20.6	21.5	22.7	23.7	23.7	24.0	27.4	26.2	28.0	25.5	33.0	33.0		
Alto, mm – Hauteur, mm	523.2	546.1	576.6	601.9	601.9	609.6	695.9	665.5	711.2	647.7	838.2	838.2		
Dry Weight, lbs.	185	198	254	271	271	318	373	384	439	450	584	606		
Peso en Seco, kg – Poids à sec, kg	83.9	89.8	115.2	122.9	122.9	144.2	169.2	174.2	199.1	204.1	264.9	274.9		

TNV POWER UNITS	
1. AIR CLEANER	Filtro de Aire Filtre d'admission d'air
• Dry type	Tipo seco Type élément - sec
• Includes rain cap	Incluye tapon para lluvia Avec chapeau pour intempérie
• Provision for adding restriction indicator	Provisión para agregar indicador de restricción Prévu pour adaptation d'un indicateur de colmatage
2. EXHAUST MUFFLER	Silenciador de Escape Silencieux d'échappement
• Industrial type	Tipo industrial Type industriel
• Includes rain cap	Incluye tapon para lluvia Avec clapet
3. HEAVY DUTY COOLING SYSTEM	Sistema de Enfriamiento de Uso Pesado Système de refroidissement haut rendement pour conditions de service extrêmes
• High ambient rated	Rango de ambiente alto Pour température ambiante élevée
• Includes fan guard	Incluye protector del ventilador Garde de protection - ventilateur
• Includes core guard	Incluye guarda del cuerpo Garde de protection - radiateur
• Includes coolant recovery bottle	Incluye botella de recuperación del refrigerante Vase de récupération - liquide de refroidissement
• Provision for optional coolant level switch	Provisión para interruptor de nivel del refrigerante Prévu pour adaptation d'un capteur de bas niveau de liquide de refroidissement
4. THROTTLE CONTROL	Control del acelerador Commande des gaz
• Vernier type	Tipo Vernier commande de type vernier
5. INSTRUMENT PANEL	Tablero de instrumentos Panneau d'instrumentation
• Electric type	Tipo eléctrico Type électrique
• Includes safety shutdown	Incluye interruptor de seguridad Avec arrêt sur protection
• Optional wiring harness extensions for remote mounting	Extensiones de arnes de alambrado opcional para montaje remoto Faisceau de fils prolong