YANMAR

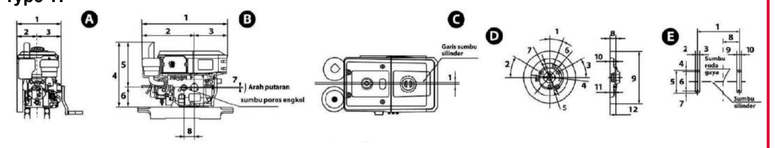
Diesel Engines

TS - TF Series

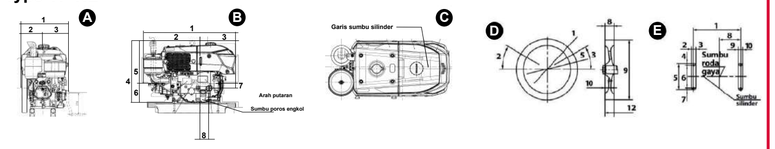
7 - 30 HP

DIMENSION

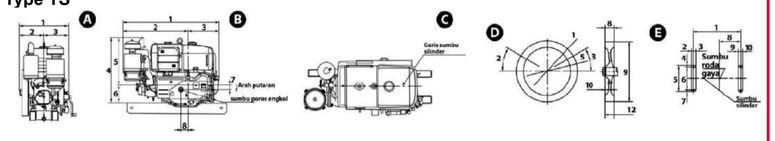
Type TF



Type TF-NL



Type TS



MODEL	A			B								C	D						
	1	2	3	1	2	3	4	5	6	7	8	1	1	2	3	4	5	6	7
TF 70 H/R/LYS-di; TF 70 LY-di	311,5	143	168,5	607,5	372,5	235	469	324	145	4	73,8	6	20°	30°	30°	Ø 146 H7	Ø 182 H7	PC Ø 124	PC Ø 160
TF 90 M (H,R,LY,LYS)-di	330,5	150	180,5	672	414	258	496	344	152	7,3	75,1	9	20°	30°	30°	Ø 146 H7	Ø 182 H7	PC Ø 124	PC Ø 160
TF 90 NL-di	380	175	205	708	419	289	493	341	152	34	78	9	20°	30°	30°	Ø 146 H7	Ø 182 H7	PC Ø 124	PC Ø 160
TF 110 M (H/R/L)-di; TF 120 M (H/R)-di	348,5	162	186,5	695	444	251	530	365	165	10,2	84,4	6	20°	30°	30°	Ø 146 H7	Ø 182 H7	PC Ø 124	PC Ø 160
TF 110 NL-di	381	175	206	788	485,5	303	534,5	369,5	165	41,5	74,5	10	20°	30°	30°	Ø 146 H7	Ø 182 H7	PC Ø 124	PC Ø 160
TF 150 NL-di	377	171,5	205,5	787	484,5	302,5	531	366	165	41,5	74,5	10	20°	30°	30°	Ø 146 H7	Ø 182 H7	PC Ø 124	PC Ø 160
TF 160 H/R-di	379,5	177,5	202,5	776	486	290	621	441	180	18	87	9		30°	30°		Ø 182 H7		PC Ø 160
TF 300 H-di	486,5	231,5	255	954,5	633,5	321	795,5	555,5	240		126,5	15		30°	30°		Ø 182 H7		PC Ø 160
TS 190 H/R-di	454,5	229	225,5	881,5/894,5	589,5	292/305	660	482	178	21,5	97,5			30°	30°		Ø 182 H7		PC Ø 160
TS 230 H/R-di	467,5	232,5	235	963,5	650	313,5	657	482	175	39,3	72,2			30°	30°		Ø 182 H7		PC Ø 160

MODEL	D					E										V-PULLEY		FLAT PULLEY (optional)	
	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	Tipe x Dia	Pitch	Tipe x Pjg	Pitch
TF 70 H/R/LYS-di; TF 70 LY-di	40	Ø 346	23	25	143	310	13	166	13	166	140	15	125	20	13	2BX111	PC Ø 160	70X100	PC Ø 124
TF 90 M (H,R,LY,LYS)-di	38	Ø 384	3	5	148	340	15	190	15	190	160	15	135	20	15	3BX111	PC Ø 160	70X100	PC Ø 124
TF 90 NL-di	38	Ø 384	3	5	148	340	15	190	15	190	160	15	135	20	15	3BX111	PC Ø 160	70X100	PC Ø 124
TF 110 M (H/R/L)-di; TF 120 M (H/R)-di	47	Ø 384	8	10	162	370	15	200	15	200	170	15	150	25	15	3BX111	PC Ø 160	70X100	PC Ø 124
TF 110 NL-di	45	Ø 384	10		162	370	15	200	15	200	170	15	150	25	15	3BX111	PC Ø 160	70X100	PC Ø 124
TF 150 NL-di	43	Ø 394	17		168	370	15	200	15	200	170	15	150	25	15	3BX111	PC Ø 160	70X100	PC Ø 124
TF 160 H/R-di	49	Ø 424	25		177,5	420	15	215	15	215	185	15	170	25	15	3B-4BX126	PC Ø 160	125X150	PC Ø 124
TF 300 H-di	65	Ø 470	15		214,5	455	20	260	20	260	220	20	201	40	40	4BX126	PC Ø 160	150X150	PC Ø 124
TS 190 H/R-di	75	Ø 400	27		139	400	15	215	15	215	185	15	180	25	15	4BX126	PC Ø 160	125X150	PC Ø 124
TS 230 H/R-di	62	Ø 445	24		146	460	15	250	15	250	220	15	210	25	17	4BX126	PC Ø 160	125X150	PC Ø 124

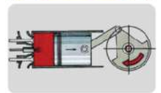
Note: Specification can be change without prior notice

in millimeter

"YANMAR Diesel Engine is versatile, tough and deserves to be chosen to be your business success partner "

Direct fuel injection produces dynamic power

Combustion power acts directly on the toroidal piston crown, boosting energy, decreasing thermal losses. Extra high output creates the tough torque needed for heavy duty jobs.



Bigger displacement

Bigger displacement gives more in reserve with long stroke pistons, they can punch put much greater torque.

Easy operation, simple servicing, less vibration, low noise level

Larger tanks for longer runs without fill-ups. Dual balancer and helical gear (for TF Series) reduces vibration and low noise level.

For L, LY, NL, & LYS

With headlamp to easy operation at night. Starting shaft at right side engine easy to start engine for powertiller application.

For TF300H-di

Design for tropical country, cartridge oil system for effective lubrication. Balancer weight and crank shaft become one construction more compact, low vibration and stabil. Additional 2 bearing on starting shaft for easiness starting engine.

Service and spareparts

Easiness to reach Yanmar Dealers for service and spareparts

PT. YANMAR DIESEL INDONESIA
Jl. Raya Jakarta Bogor KM. 34,8 Depok 16415
Jawa Barat - Indonesia
YANMAR Hotline 0804-1111-777
Email: info-yadin@yanmar.com
www.yanmar.com/id

Dealer/ Distributor:

Rev01/0621

YANMAR

TF70(H-di) | TF70(R-di) | TF70 (LYS-di)/70 (LY-di) | TF90 (MLY/MLYS-di)/ TF110 (ML-di) | TF90/110/120 (MR-di) | TF90/110/120 (MH-di) | TF90/110/150 (NL-di) | TF160 (R-di) | TF160 (H-di) | TS190/230 (R-di) | TS190 (H-di)/ TS230 (HV-di) | TF300 (H-di)

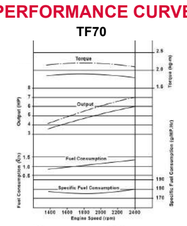
SPECIFICATION

Model		Unit	TF70E-IS	TF70-IV	TF70E-IV	TF70L-IS	TF70-IS	TF90MLY-IS	TF90M-IS	TF90M-IV	TF90ME-IS	TF90ME-IV	TF90NL	TF90HME-IV	TF120ME-IS	TF120M-IS	TF120M-IV	TF120HM-IV	TF120ME-IV	TF120N-L	TF150N-L	TF160-IV	TF160H-IV	TF160-IS	TF160E-IS	TF160E-IV	TS190R-IS	TS190RE-IS	TS190RE-IV	TS190R-IV	TS230R-IV	TS230H-IV	TS230R-IS	TS230HE2-IV	TS230RE2-IV	TS230RE2-IS	TF300H-IV	Remarks
Type		-	Horizontal diesel engine, 4 stroke, 1 cylinder, water cooled																																			
Fuel injection timing	FID	^{0} bDTC	17					18							17						19	17					19										20	
Bore x stroke		mm	78 x 80					85 x 89							92 x 96						96 x 99	102 x 105					110 x 106				112 x 115						125 x 120	
Displacement		cc	382					493							638						716	857					1007				1132						1472	
Continuous rated	Power / Eng. Speed	kW{HP}/min^{-1}	4.4 {6.0}/2400					6.3 {8.5}/2400							7.7 {10.0}/2400						9.56 {13.0}/2400	10.3 {14.0}/2400					11.8 {16.0}/2200				14.0 {19.0}/2200						19.1 {26.0}/2200	
Maximum power	Power / Eng. Speed	kW{HP}/min^{-1}	5.1 {7.0}/2400					7.0 {9.5}/2400							8.8 {12.0}/2400						11.0 {15.0}/2400	11.8 {16.0}/2400					14.0 {19.0}/2200				16.9 {23.0}/2200						22.1 {30.0}/2400	
Compression ratio		-	18.1					17.9							17.7						17.4	17.8					16.3										15.5	
Location of PTO/direction of rotation			Counterclockwise viewed from flywheel																																			
Fuel injection pump		-	Bosch type																																			
Fuel injection pressure		Mpa	200																																			
Lubrication system			Forced lubrication with trochoid pump & hydraulic regulator valve																																			
Fuel tank capacity		L	7.1					10.5					11.9	10.5	11					11.9		14.3					13.7				21.5						29.5	
Lubrication oil capacity (Effective/full)		L	0.6/1.8					0.8/2.2							1.0/2.8							1.5/3.0					2.0/3.6				3.0/6.0						4.5/11.3	
Lubrication oil applicable			API grade CB, CC, or CD (SAE #30, 40, 50, 20W-50)																																			
Cooling water system			Radiator											Hopper	Radiator			Hopper	Radiator					Hopper	Radiator							Hopper	Radiator	Hopper	Radiator		Hopper	
Cooling water capacity (Effective/full)		L	0.25/1.25					0.25/1.65						8.9	0.45/2.3			12	0.45/2.3		0.35/2.32	0.35/3		13	0.35/3			0.5/4.0			0.5/5.9	22.8	5.9	22.8		0.7/5.9	23.5/26.7	
Starting system			Electric	Manual	Electric			Manual			Electric	Electric	Manual	Electric		Manual			Electric	Manual						Electric	Manual	Electric			Manual				Electric			Manual	
PTO Type			Stub shaft	V-Pulley				Stub shaft		V-pulley	Stub shaft	V-pulley			Stub shaft		V-pulley							Stub shaft		V-pulley	Stub shaft		V-pulley			Stub shaft	V-pulley		Stub shaft	V-pulley	
Engine dimension	length	mm	696.5					673					703.5	672	695					784	787	776.5					894				966			1035			954.5	
	width	mm	315.5					333					376	333	352.5					377		384					454.5				469.5						486.5	
	height	mm	469					496					505	496	530						531	607					736.5				811.5						797.5	
Lamp		V-W/W	-			12-25/25	-	12-45/45	-				12-32/32		-					12-32/32		-					-				-							
Nett weight		kg	67.5			74	67.5	92	91		97.5		90	97.5	113.5	106,5		106.3	113.5	108	120	140	133.5	140	148		186	191	186	203	196	203	196	214		260	

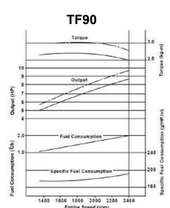
Note: All data subject to alteration without prior notice

PERFORMANCE CURVE

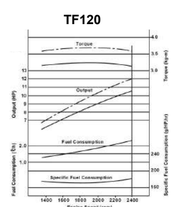
TF70



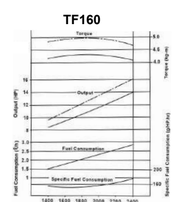
TF90



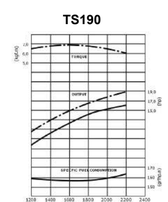
TF120



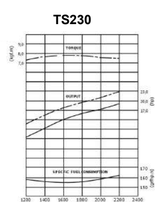
TF160



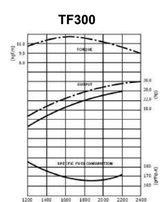
TS190



TS230



TF300



Note: T hr. rating
continuous