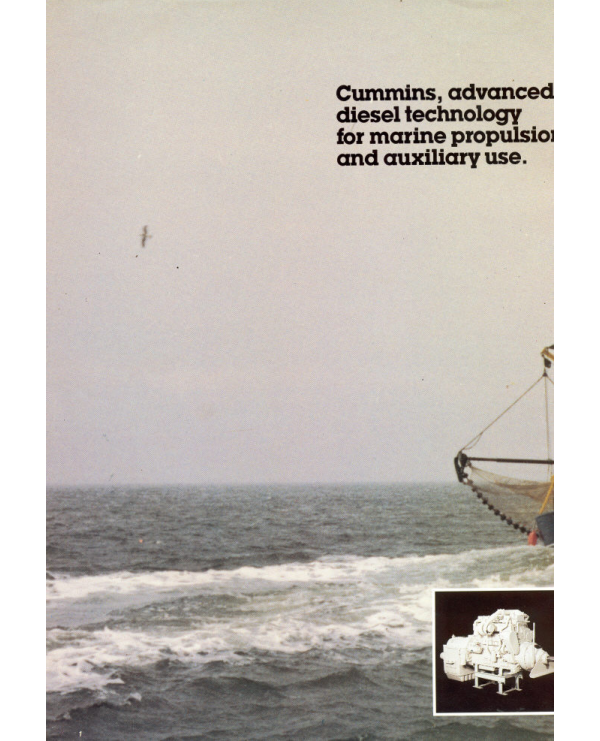
CUMMINS MARINE

Diesels for fishing and workboats

Propulsion and auxiliary power
76-1385hp (57-1033kW)



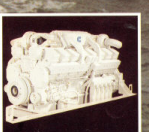

Cummins, advanced diesel technology for marine propulsio and auxiliary use.



hing and work boats place unique
mands on a diesel engine for both
opulsion and auxiliary uses.
mmins premium quality marine
gines have shown over 65 years that
y have the reliability that crews can
pend on and the performance and
onomy that makes for profitability. The
rformance profile of Cummins marine
sels has been evolved from a close,
actical understanding of the fishing
d work boat markets.

The company, one of the world's largest manufacturers of diesels, has a marine engine range that meets the most demanding requirements.
The excellence of Cummins products is recognised by the world's leading classification groups. Cummins advanced engineering from the B Series to the largest K Series units provides skippers and boat owners with a package of power, economy and long term reliability for all kinds of work and fishing boats.

Agency Approvals
Cummins marine engines for continuous duty operation have agency design approval by the American Bureau of Shipping, Lloyd's Register, Germanische Lloyd, Det Norske Veritas, Registro Italiano Navale, Bureau Veritas and for registration by the Canadian Coast Guard Ship Safety Branch Inspection. In addition Cummins has manufacturing facilities that are approved by ABS, Lloyds, DNV and RINA for quality control procedures and batch and line production.



Cummins B Series, compact, reliable power

The compact, lightweight Cummins B Series engines are among the most reliable, durable and fuel efficient engines of their type. These engines are capable of providing main propulsion power in a wide variety of work boat and fishing boat applications.

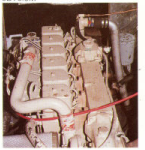
Four and six cylinder models are available with displacements of 3.9 and 5.9 litres. The B Series, the smallest engine in the marine product line, covers the 76 hp (57kW) to 220 bhp (164kW) sector.
For auxiliary uses this same engine series provides quiet power to drive generators in the 20 to 65 kW range.

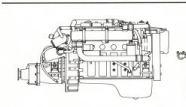
The unit construction, a key factor i
Series efficiency, means less parts
consequently less weight.
Marine B Series feature:-
Water cooled Holset turbocharger
exhaust manifold
Engine heat exchanger with remov
end covers for easy cleaning
Gear driven sea water pump

ir cooled exhaust elbow
inted expansion tank for keel cooled
is
able for a wide variety of marine
ts

6BT5.9M

6BT5.9M





Model	4BT3.9-M	6BT5.9-M	6BT5.9-M	6BTA5.9-M	6BTA5.9-M
Aspiration	Nat. Asp.	Turbocharged	Nat. Asp.	Turbocharged	Turbocharged/ Aftercooled
Cylinder	4	4	6	6	6
Bore mm/in	102/4.02	102/4.02	102/4.02	102/4.02	102/4.02
Stroke mm/in	120/4.72	120/4.72	120/4.72	120/4.72	120/4.72
Displacement Litre/c.i.d	3.9/239	3.9/239	5.9/359	5.9/359	5.9/359
Compression Ratio	18.5:1	17.5:1	18.5:1	17.5:1	15.5:1
Engine Rating/ Engine Speed rpm					
High Output	2600	2600	2600	2600	2600
Continuous Medium Duty	2500	2500	2500	2500	2500
Engine Power Output					
kW/bhp *High Output*	60/80	112/150	89/120	157/210	186/250
Continuous Medium Duty	51/76	97/130	86/115	113/152	164/220
Brake Mean Effective Pressure kPa/psi					
High Output	669/97	827/120	677/98	841/122	1462/212
Continuous Medium Duty	696/100	912/132	686/101	924/134	979/142
Piston Speed m/s/ft/min					
High Output	11.2/2205	11.2/2205	10.4/2047	10.4/2047	10.4/2047
Continuous Medium Duty	10.0/1968	10.0/1968	10.0/1968	10.0/1968	10.0/1968
Fuel Consumption per hour @ Rated Power					
g/kW/lb/hp *High Output*	243/.399	222/.365	—	214/.369	219/.361
Litre/gal	17.0/3.7	28.7/6.3	—	40.9/9.0	47.3/10.4
g/kW/lb/hp *Continuous*					
Medium Duty	233/.383	215/.354	—	225/.370	—
Litre/gal	15.9/3.5	18.7/4.1	—	31.1/6.8	42.4/9.33
Dimension (w/Gear)					
Length mm/in	1072/42.2	1399.5/55.1	1433/56.4	1433/56.4	1442/57
Width Turbo Top Mount mm/in	665/26.2	678/26.7	665/26.2	678/26.7	—
Width Turbo Rear Mount mm/in		665/26.2		665/26.2	766/30
Height Turbo Top Mount mm/in	803/31.6	947/37.3	856/33.7	998/39.3	—
height Turbo Rear Mount mm/in		803/31.6		856/33.7	828/32.6
Weight kg/lb	447.2/985	460.8/1,015	569/1255	579/1,275	613/1350
Marine Gear	HSW390A	BW70C	MG92C	MG92C	MG92EA

Dry weight with heat exchanger and gear as noted
Engine type – inline, four stroke, direct injection

For rating definitions see Page 15

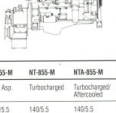
Cummins 855, proven, premium marine power

The Cummins 855, 14 litre, inline six cylinder engine series has won the respect of boat owners and crews worldwide. These dependable engines offer considerable cost savings plus performance, and economy gains when compared with other similar engines. Cummins 855 engines are designed to provide the highest standards of reliability and long term dependability. In marine applications many 855 engines have run in excess of 25,000 hours without requiring major overhaul. The engine's big 14 litre cylinder displacement results in lower internal pressures and stress levels to maximise the unit's useful working life. Premium engineering features of the Cummins 855 range include massive strong major componentry, four valv per cylinder and Cummins PT fuel system. Naturally aspirated, turbocharged and aftercooled engine are available for propulsion duties in outputs ranging from 195 hp (145kW to 510 hp (380kW) and auxiliary pow 105-261 kWe at 50/60 cycles.

NT-855-GC(M)

N-855-G (M)

N-855-M



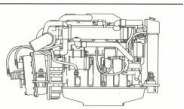
Model	N-855-M	NT-855-M	NTA-855-M	NTA-855-M2
Aspiration	Nat. Asp.	Turbocharged	Turbocharged/ Aftercooled	Turbocharged/ Aftercooled
Bore mm/in	140/5.5	140/5.5	140/5.5	140/5.5
Stroke mm/in	152/6.0	152/6.0	152/6.0	152/6.0
Displacement Litre/c.i.d.	14.0/855	14.0/855	14.0/855	14.0/855
Compression Ratio	15.8:1	14.5:1	14.5:1	N/A
Engine Rating/ Engine Speed rpm				
Continuous Medium Duty	1950	2100	2100	2100
Continuous Heavy Duty	1800	1800	1800	1800
Engine Power Output kW/bhp				
Continuous Medium Duty	160/215	269/360	298/400	380/510
Continuous Heavy Duty	145/195	224/300	261/350	313/420
Brake Mean Effective Pressure kPa/psi				
Continuous Medium Duty	704/102	1094/159	1216/176	1550/225
Continuous Heavy Duty	692/100	1064/154	1241/180	1490/216
Piston Speed m-s/ft/min				
Continuous Medium Duty	9.9/1950	10.7/2100	10.7/2100	10.7/2100
Continuous Heavy Duty	9.1/1800	9.1/1800	9.1/1800	9.1/1800
Fuel Consumption per hour @ Rated Power				
g/kW/h/hp *Continuous*	244/.400	228/.375	222/.365	N/A
Litre/gal *Medium Duty*	45.8/10	71.8/15.8	77.8/17.1	N/A
g/kW/h/hp *Continuous*	235/.386	217/.357	209/.382	N/A
Litre/gal *Heavy Duty*	40.1/8.8	57.1/12.6	67.5/14.8	N/A
Dimension (w/Gear)				
Length mm/in	2131/83.90	2185/86.02	2221/87.44	2221/87.44
Width mm/in	930/36.63	930/36.63	930/36.63	930/36.63
Height mm/in	1541/60.65	1726/68.08	1781/70.10	1781/70.10
Weight kg/lb	1558/3,435	1745/3,850	2050/4,520	2050/4520
Marine Gear	MG-509 Deep Case	MG-510 Deep Case	MG-514 Deep Case	MG-514

Dry weight with heat exchanger and gear as noted.
Engine type: inline, four stroke, direct injection, 6 cylinder

For rating definitions see Page 15

Cummins C Series, compact propulsion power

For applications where maximum propulsion performance is required from a lightweight power unit, Cummins offers an 8.3 litre in line 6 in naturally aspirated, turbocharged and turbocharged aftercooled forms. The C Range are ideal not only for high speed work boat application but also for the lower displacement fishing vessels. These engines are rated from 132 bhp (98kW) all the way through to 300 bhp for Medium Continuous Duty Ratings. These same engines are rated up to 400 bhp for pleasure boat applications.



Model	6C8.3M	6CT8.3M	6CTA8.3M
Aspiration	Natural	Turbocharged	Turbocharged/ Aftercooled
Bore mm/in	114/4.49	114/4.49	114/4.49
Stroke mm/in	135/5.32	135/5.32	135/5.32
Displacement Litre/cu.ins.	8.3/504.5	8.3/504.5	8.3/504.5
Compression Ratio	16.4:1	17.3:1	16.5:1
Engine Output/ Engine Speed rpm			
High Output	–	2600	2600
Continuous Medium Duty	2500	2500	2500
Continuous Heavy Duty 1	2200	2200	2200
Continuous Heavy Duty 2	–	1800	–
Engine Power Rating kW/bhp *High Output*	–	–	261/350
Continuous Medium Duty	119/160	205/275	224/300
Continuous Heavy Duty 1	98/132	186/255	209/280
Continuous Heavy Duty 2	–	179/240	–
Brake Mean Effective Pressure kPa/psi			
High Output	–	–	1517/220
Continuous Medium Duty	967/140	1188/172	1296/188
Continuous Heavy Duty 1	912/132	1252/182	1375/199
Continuous Heavy Duty 2	–	1448/210	–
Piston Speed m-s/ft-min			
High Output	–	–	11.75/2305
Continuous Medium Duty	11.3/2217	11.3/2217	11.3/2217
Continuous Heavy Duty 1	9.9/1951	9.9/1951	9.9/1951
Continuous Heavy Duty 2	–	8.13/1596	–
Fuel Consumption/hour @ Rated Power			
g/kw/lb/hp *High Output*	–	–	223/.366
Litre/gal	–	–	68.3/18.1
g/kw/lb/hp *Medium Duty*	236/.388	220/.361	221/.364
Litre/gal	33.1/8.75	53/14	58.3/15.4
g/kw/lb/hp *Heavy Duty 1*	234/.385	223/.367	222/.365
Litre/gal	27.1/7.06	50/13.2	54.5/14.4
g/kw/lb/hp *Heavy Duty 2*	–	206/.338	–
Dimension (w/Gear)			
Length mm/in	1594/63	1594/63	1594/63
Width mm/in	849/33.4	849/33.4	849/33.4
Height mm/in	903/36.2	926/36.2	954/37.6
Weight kg/lb	800/1760	814/1794	824/1814

Dry weight with heat exchanger and gear

For rating definitions see Page 15

Cummins 28 litre, rugged, dependable high performance

The vee-12, 28 litre shares many of its premium engineering features with the well proven inline six cylinder Cummins 855 engine. For marine applications demanding high power the 28 litre fills the bill. This engine range offers the cost saving advantages of a high speed diesel with the very long term reliability and overall dependability normally associated only with low speed units.

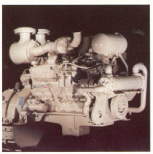
The 28 litre is a conservatively rated, low stress design, with a maximum rating in turbocharged and aftercooled form of 675 hp (504kW) for continuous duty propulsion applications. The design is compact and light for its premium power and engineering and offers considerable fuel economy benefits to the operator.

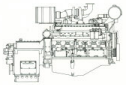
When overhaul is eventually required 28 litre will also show significant savi over older, slow speed engine desig Replacement parts costs for the 28 l will be considerably lower. Also the engine is lighter, smaller structure len itself to faster and easier repair within confines of an engine room using le labour.

VTA-28-M

VTA-28-M

V-28-M





Model	VTA28-M
Aspiration	Turbocharged/ Aftercooled
Bore mm/in	140/5.5
Stroke mm/in	152/6.0
Displacement Litre/c.i.d	28/1710
Compression Ratio	13.0:1
Engine Speed rpm	
Continuous Medium Duty	2100
Continuous Heavy Duty	1800
Engine Power Output kW/bhp	
Continuous Medium Duty	541/725
Continuous Heavy Duty	504/675
Brake Mean Effective Pressure kPa/psi	
Continuous Medium Duty	—/—
Continuous Heavy Duty	1197/174
Piston Speed m/s/ft/min	9.1/1800
Fuel Consumption per hour @ Rated Power g/kW/lb/hp	
Continuous Medium Duty	299/.377
Continuous Heavy Duty	214/.352
Litre/gal	
Continuous Medium Duty	146.1/38.6
Continuous Heavy Duty	127.2/33.6
Dimension (w/Gear)	
Length mm/in	3044.19/119.85
Width mm/in	1317/51.80
Height mm/in	2011.72/79.18
Weight kg/lb	4000/8,800
Marine Gear	MG-520 Deep Case

Dry Weight with heat exchanger and gear as noted. Engine type – 40° Vee, four stroke, direct injection, 12 cylinder

For rating definitions see Page 15

Cummins K Series, high power and economy

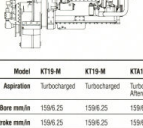
Three engine formats make up the K Series range, the most powerful units available from Cummins. Inline six, 19 litre, vee-12, 38 litre and a vee-16, 50 litre K Series engine are available in the 365 to 1385 hp (272 to 1033kW) propulsion range.

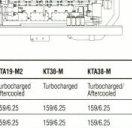
All K Series engines have a high degree of parts commonality (85 per cent between K6 and KV/90 per cent plus between V12 and V16), thus parts costs are considerably reduced.
With its wide power spread the K Series is a particularly versatile engine range. It is suitable for medium to high power auxiliary applications and in single or multiple installations K Series engines can provide propulsion power for a wic variety of work or fishing boats.
Like all Cummins premium engines th K Series features four valves per cylinde Cummins PT fuel system and exceptionally strong major componentry.

KTA-19-M

2 x KT-19-M

KT-19-M





Model	KT19-M	KT19-M	KTA19-M	KTA19-M2	KT38-M	KTA38-M	KTA50-M
Aspiration	Turbocharged	Turbocharged	Turbocharged/ Aftercooled	Turbocharged/ Aftercooled	Turbocharged	Turbocharged/ Aftercooled	Turbocharged/ Aftercooled
Bore mm/in	159/6.25	159/6.25	159/6.25	159/6.25	159/6.25	159/6.25	159/6.25
Stroke mm/in	159/6.25	159/6.25	159/6.25	159/6.25	159/6.25	159/6.25	159/6.25
Displacement Litre/c.i.d.	18.9/1150	18.9/1150	18.9/1150	18.9/1150	37.7/2300	37.7/2300	37.7/2300
Compression Ratio	15.5:1	15.5:1	15.5:1	N/A	15.5:1	15.5:1	15.5:1
Engine Rating/ Engine Speed rpm							
Continuous Medium Duty	2100	–	–	2100	1950	1950	1950
Continuous Heavy Duty	1800	1800	1800	1800	1800	1800	1800
Engine Power Output kW/bhp							
Continuous Medium Duty	380/510	–	–	507/680	634/850	780/1045	1033/1385
Continuous Heavy Duty	272/365	317/425	373/500	433/580	597/800	701/940	932/1250
Brake Mean Effective Pressure kPa/psi							
Continuous Medium Duty	1153/167	–	–	1537/223	1034/150	1272/184	1264/183
Continuous Heavy Duty	962/140	1121/163	1318/191	1529/222	1055/153	1239/180	1236/179
Piston Speed m/s/ft/min							
Continuous Medium Duty	11.1/2188	–	–	11.1/2188	10.3/2031	10.3/2031	10.3/2031
Continuous Heavy Duty	9.5/1875	9.5/1875	9.5/1875	9.5/1875	9.5/1875	9.5/1875	9.5/1875
Fuel Consumption per hour @ Rated Power							
Continuous	231/.380	–	–	208/.342	225/.369	222/.364	213/.350
g/kW/lb/hp *Medium Duty*	103.3/22.8	–	–	106/26	167.2/36.8	202.9/44.5	258.4/57
Litre/gal *Continuous*	213/.350	211/.346	218/.358	210/.346	229/.362	219/.360	214/.351
g/kW/lb/hp *Heavy Duty*	68.1/14.98	78.4/17.5	95.4/21	126/33.2	154.4/34	180.4/40	233.9/51.5
Litre/gal							
Dimension (w/Gear)							
Length mm/in	2357/92.8	2318/91.25	2710/106.69	2710/106.69	3798/149.40	3863/152.08	3343/131.60
Width mm/in	1080/42.5	1080/42.5	927.6/36.5	927.6/36.5	1355/53.35	1355/53.35	1355/53.35
Height mm/in	1996/78.6	1996/78.6	2013/79.25	1928/72	1939/76.31	1969/75.13	1909/75.13
Weight kg/lb	2433/5,360	2494/5,500	3084/6,800	2928/6,480	5307/11,700	6101/13,450	5397/11,900
Marine Gear	MG-514 Deep Case	MG-516 Deep Case	MG-518 Deep Case	MG-518 Shallow Case	MG-530	MG-540	–

Dry weight with heat exchanger and gear as noted except for
K50 Series which is shown without marine gear but includes heat exchanger and base rails.
Engine Type:
K19 Series – inline, four stroke, direct injection, 6 cylinder
K38 Series – 60° Vee, four stroke, direct injection, 12 cylinder
K50 Series | 60° Vee, four stroke, direct injection, 16 cylinder

For rating definitions see Page 15

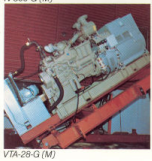
Cummins marine auxiliary power

Cummins offers a wide range of heavy duty engine models for marine auxiliary generator set applications. These engines have the operational advantages of reliability and durability and are extremely fuel efficient. The user also benefits from the ready availability worldwide of consistent quality and low price volume produced parts. The engines offered for generator sets are naturally aspirated, turbocharged and aftercooled models of the B Series, 855, 19-, 28-, 38- and 50-litre series. Governors of the hydraulic and electronic type are offered manufactured by Cummins, Barber Coleman, American Bosch and Woodward to meet BS5514, VDMA6280 and other requirements.

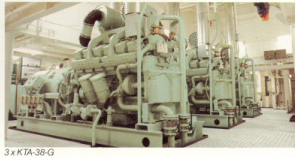
Angularity Testing

For installation on mobile North Se drilling rigs, Cummins engines hav been angularity tested under the supervision of leading certification agencies.

N-855-G (M)



VTA-28-G (M)



3 x KTA-38-G

Ratings for Cummins Generator Set Drive Engines for Marine Auxiliary Power

Model	Gross Engine Output Standby kW bhp 50Hz	60Hz	Prime kW bhp 50Hz	60Hz	% Typical Generator Efficiency	Typical Generator Set Output* Standby kWe kVa 50Hz	60Hz	Prime kWe kVa 50Hz	60Hz
4B3.9-G(M)	38.8 52.8	45.5 61.0	35.0 47.0	41.0 55.0	87	33.0 41.0	39.0 49.0	30.0 37.0	35.0 44.0
6B5.9-G(M)	59.7 80.0	72.3 97.0	54.4 73.0	65.5 88.0	88	52.0 65.0	63.0 79.0	47.0 58.0	57.0 71.0
6BT5.9-G_1(M)	81.3 113.0	100.0 134.0	73.8 103.0	91.0 122.0	88	71.0 89.0	87.0 109.0	64.0 80.0	79.0 99.0
6BT5.9-G_2(M)	98.4 132.0	123.8 166.0	89.5 120.0	112.6 151.0	88	86.0 107.0	108.0 136.0	78.0 98.0	98.0 122.0
N-855-G(M)	134.0 180.0	160.0 215.0	122.0 163.0	145.0 194.0	90	118.0 146.0	141.0 176.0	105.0 131.0	128.0 160.0
NT-855-G_1(M)	172.0 230.0	198.0 265.0	156.0 209.0	180.0 241.0	91	154.0 193.0	177.0 221.0	139.0 174.0	161.0 201.0
NT-855-G_2(M)	220.0 295.0	265.0 355.0	198.0 265.0	239.0 320.0	91	197.0 246.0	258.0 298.0	177.0 221.0	215.0 269.0
NT-855-G_3(M)	254.0 340.0	291.0 390.0	230.0 308.0	264.0 354.0	91	228.0 285.0	262.0 326.0	206.0 258.0	230.0 297.0
NTA-855-G_1(M)	265.0 355.0	317.0 425.0	240.0 322.0	287.0 385.0	92	241.0 301.0	289.0 301.0	218.0 275.0	261.0 326.0
NTA-855-G_2(M)	351.0 470.0	399.0 535.0	317.0 425.0	358.0 480.0	93	324.0 405.0	369.0 461.0	292.0 365.0	330.0 412.0
KTA-19-G_1(M)	350.0 470.0	418.0 560.0	317.0 425.0	377.0 505.0	93	324.0 405.0	386.0 483.0	292.0 365.0	348.0 435.0
KTA-19-G_2(M)	369.0 495.0	448.0 600.0	336.0 450.0	392.8 525.0	93	340.0 425.0	413.0 516.0	310.0 388.0	361.0 451.0
VTA-28-G_1(M)	504.0 675.0	567.0 760.0	458.0 614.0	515.0 690.0	94	471.0 589.0	530.0 663.0	428.0 535.0	481.0 601.0
VTA-28-G_2(M)		671.0 900.0		560.0 750.0	94		628.0 785.0		523.0 654.0
KTA-38-G_1(M)	701.0 940.0	847.0 1135.0	634.0 850.0	768.0 1030.0	95	653.0 816.0	790.0 988.0	590.0 738.0	716.0 895.0
KTA-38-G_2(M)	731.0 980.0	895.0 1200.0	664.0 890.0	890.0 1085.0	95	689.0 861.0	845.0 1056.0	625.0 781.0	763.0 954.0
KTA-50-G(M)	970.0 1300.0	1111.0 1490.0	880.0 1180.0	1007.0 1350.0	95	915.0 1144.0	1051.0 1314.0	830.0 1038.0	951.0 1189.0

NB All engines fitted with watercooled exhaust manifolds and heat exchanger.
** Includes reduction for raw water pump.*

CUMMINS MARINE

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