

# **HTC POWER**

Established in 1941, HTC Group ventured into imports in 1946. A variety of engineering goods like machine tools, diesel engines, diesel fuel injection equipment, automobile spares, diesel engine spares, various types of machineries and other equipment were imported from well-known manufacturers in USA, UK, Germany, Denmark, Holland, Italy and Japan.

We specialised in the import of diesel engines from Japan [Fuji Precision Machinery Co. Ltd. and Yokohama Shipyard & Engine Co. Ltd. a Mitsubishi organisation] under our own trademark 'HTC'.

In 1960 we entered into a technical collaboration for manufacturing horizontal type diesel engines with the Fuji Group and since then HTC has evolved, marking its presence and rising to occupy an enviable position in the market. The diesel engine has continued as our core business ever since, our key tool in the rationalization and modernization of agriculture, construction, fishing and industry. We have brought the nation, ever more energy-efficient and economic engines. Our goal is to outperform the competition and offer more customer satisfaction by providing the machines that use energy with the utmost efficiency and value. Every engine is designed to be efficient and more durable than competition

Whatever the sphere of operation we are committed to developing and manufacturing quality products and services with a sense of responsibility to the environment, needs of society and commitment to the local markets. Understanding customer needs, insight into local customs and culture and high levels of service have helped us gain a competitive edge.

For decades HTC has been going to extremes to ensure its engines are the very best for Water Pumps, Construction, Road equipments, Sprinklers, Sugarcane crushers and Coffee pulpers because we know that our product reliability will earn your trust.

57 years of built-in expertise dedication, passion and innovative engineering helps us turn out sturdy products which give great reliability, dependable performance and outstanding durability making an HTC worthwhile investing on.

We understand that it's not just significant but imperative to update and improvise technologically. That's precisely why we have constant product revisions and upgradations so that customer satisfaction moves on to customer delight which in turn has helped HTC emerge as a force to reckon with.



HTC is your answer.

Designed for easy operation and simple maintenance

Easy start

Reliable

Strong and sturdy

Outstanding Service



# **AGRO INDUSTRIES**

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### HTC Vertical 4-Stroke Cycle Air Cooled Diesel Engine

### Performance You Can Count On

The strong and sturdy construction of HTC AGRO ENGINES used for threshers as well as farm engines guarantees it's long life and ensures matchless performance. We test our engines relentlessly for output, fuel consumption and endurance at every stage of manufacturing to make them reliable and outstanding in service. Besides what makes them unbeatable is the prompt, careful and efficient after-sales-service.

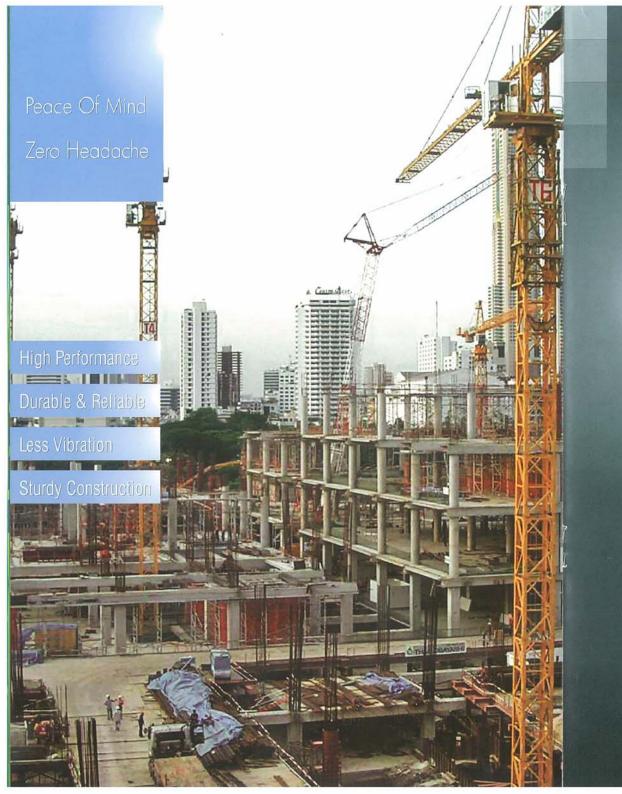
HTC Agro series of engines outperforms other engines in it's class. It is one of the strongest, reliable and durable engines built.













## HTC POWER



#### HTC Vertical 4-Stroke Cycle Air Cooled Diesel Engines

## Superior Power, Superior Efficiency, User Friendly

The world of construction requires labour diminution and time saving techniques, HTC designs engines to meet precisely these challenges as well as different demands from the construction equipment manufacturer and their customers. Engines required in the construction sector have to withstand the dust and heat and require non-stop performance as well. Strong and sturdily constructed H.T.C engines guarantee long life and ensure matchless performance. The rigorous tests they undergo for output, fuel consumption and endurance at every stage of manufacturing make them consistently reliable and outstanding in performance.
HTC engines have surpassed customer expectations in terms of Service, Fuel economy, Performance and Durability. Success has not happened by chance. It is because of the passion and commitment to solid quality that HTC continues to dominate competition.























HTC POWER



HTC Vertical 4-Stroke Cycle Water Cooled Marine Diesel Engines

# Tougher, Great Efficiency, No Compromises

Marine applications demand engines that are built to survive any unpredictable circumstances. The weather conditions demand engines that can give water vehicles the muchneeded stability, tremendous load bearing capacity and a fault-free performance, be it the local ferries, trawlers, fishing boats or emergency fire fighting on sophisticated navigation systems. With our extensive nation-wide setup one can face the rough weather with ease.

MARINE ENGINES are available with or without Reduction Gear Box with forward, reverse and neutral operations. A standard Marine Engine is provided with variable speed control (Ratchet or cable type), Heavy Duty Flywheel, driving pulley for cooling water pump, Lub oil Pressure gauge, oil bath air cleaner, triangular flange on flywheel for direct coupling of Propeller Shaft and 8" long Extension Shaft for Camshaft for easy starting.

Complete Stern Gear Assembly, M.S. Channel Fabricated base plate, cooling water pump with Pulley, 'V Belt and Bilge Pump with necessary hoses can be supplied specific demand.





## AGRICULTURE

PUMP TYPE	HEAD RANGE (Meter)	DISCHARGE (Lit per Min)	Pump Size (MM)	Rated Speed (RPM)	Engine Model	Rated BHP as per IS 11170	S.F.C. (gms per kw hr)	Lubric ating oil Sump capaci ty (Lit)	Net Wt. of pump set (kg.)	Gross Wt. of pump set (kg.)	Overall Packing Dimensions (cms
NDCV - 3+A	7 to10.5	1170 - 810	80 X 65	1500	HTCWP - 3.5(TRB)	3.5	251	1.25	120	190	90 x 48 x 79
NDCV - 2+B	13.5 to 17	930 - 720	65 X 50	2050	HTCWP - 4.5(TRB)	4.5	275	1.25	120	190	90 x 48 x 79
NDCV - 3+C	13 to 16	1140 - 900	80 X 65	2200	HTCWP - 5(TRB)	5	245	1.25	120	190	90 x 48 x 79
TDCV 3+	12 to 18	600 - 1320	80 X 65	1500	VRS - 5(TRB)	5	251	2.85	190	290	107 x 62 x 100
TDCV 3	11 to 22	540 - 1680	80 X 80	1500	VRS - 5(TRB)	5	251	2.85	190	290	107 x 62 x 100
TDCS 3+	12 to 18	600 - 1380	80 X 65	1500	VRS - 5(TRB)	5	251	2.85	190	290	107 x 62 x 100
TDCV 3+	12 to 18	600 - 1380	80 X 65	1500	CMS - 6.5(TRB)	6.5	251	2.85	190	290	107 x 62 x 100
TDCV 3	11 to 22	540 - 1680	80 X 80	1500	CMS - 6.5(TRB)	6.5	251	2.85	190	290	107 x 62 x 100
TDCV 4	6 to 14	480 - 1800	100 X 100	1500	CMS - 6.5(TRB)	6.5	251	2.85	190	290	107 x 62 x 100
TDCV 4	6 to 14	480 - 1800	100 X 100	1800	SFS - 8(TRB)	8	251	2.85	190	290	107 x 62 x 100
TDCS 3+	12 to 18	600 - 1380	80 X 65	1800	SFS - 8(TRB)	8	251	2.85	190	290	107 x 62 x 100
TDCS 4	6 to 14	1020 - 2280	100 X 100	1800	SFS - 8(TRB)	8	251	2.85	190	290	107 x 62 x 100

## GENERAL / AGRO INDUSTRIES (AIR COOLED)

MODELS	HTCAP-3.5	AVC-6/7	AVF-8/9	AMS-10/11	AVC-12/14	AVF-16/18	AMS-20/22
No. of Cylinders	1	1	1	1	2	2	2
внр	3.5	6 7	8 9	10 11	12 14	16 18	20 22
KW	2.6	4.4 5.2	5.9 6.6	7.4 8.1	8.8 10.3	11.8 13.2	14.7 16.2
RPM Crankshaft	1500	1500/1800	1500/1800	1500/1800	1500/1800	1500/1800	1500/1800
RPM Camshaft	750	750/900	750/900	750/900	750/900	750/900	750/900
BORE - mm	85	87.5	95	102	87.5	95	102
STROKE -mm	80	110	110	116	110	110	116
Torque at Crankshaft -Kgm	1.67	2.86/2.78	3.82/3.58	4.77/4.38	5.72/5.57	7.63/7.16	9.54/8.76
Torque at Camshaft -Kgm	3.34	5.72/5.57	7.63/7.16	9.54/8.76	11.45/11.14	15.26/14.33	19.08/17.51
Compression Ratio	16.5:1	17:1	17:1	17:1	17:1	17:1	17:1
Injection Timing- BTDC	27'-29"	27*-29*	27*-29*	27°-29°	27*-29°	27°-29°	27°-29°
Injection Pressure Kg/cm2	200	200	200	200	200	200	200
Spec. fuel consumption g/bhph	185	185	200	200	200	200	200
Lub. Oil consumption g/bhph	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Lub. Oil sump capacity -Ltrs.	1.9	2.85/3.4	3.4	3.4	6.8	6.8	6.8
Fuel Tank Capacity Ltrs.	3.5	6.5/11	11	11	11	11	11
Weight Nett (Dry)-Kg.	80	155/170	190	190	255	290	290
Weight Gross-Kg.	120	225/240	260	260	325	360	365
Packing case size-mm	510x457x610	686x660x965	686x660x965	686x660x965	840x660x965	840x660x965	990x810x965
Volume M3	0.14	0.44	0.44	0.44	0.535	0.535	0.77

### CONSTRUCTION

TECHNICAL DATA	NAVC-6/7	NAVF-8/9	NAMS-10/11	NAVC-12/14	NAVF-16/18	NAMS - 20/22/25
No. of Cylinders	1	1	1	2	2	2
BHP KW	6 / 7 5.2	8 5.9 / 6.6	10 / 11 7.4 / 8.1	$\frac{12}{8.8} / \frac{14}{10.3}$	16 11.8 / 18 13.2	$\frac{20}{14.7} / \frac{22}{16.2} / \frac{25}{18.4}$
RPM Crankshaft	1500/1800	1500/1800	1500/1800	1500/1800	1500/1800	1500/1800/2000
RPM Camshaft	750/900	750/900	750/900	750/900	750/900	750/900/1000
BORE - mm	87.5	95	102	87.5	95	102
STROKE -mm	110	110	116	110	110	116
Torque at Crankshaft -Kgm	2.86/2.78	3.82/3.58	4.77/4.38	5.72/5.57	7.63/7.16	9.54/8.76/8.95
Torque at Camshaft -Kgm	5.72/5.57	7.63/7.16	9.54/8.76	11.45/11.14	15.26/14.33	19.08/17.51/17.90
Compression Ratio	17:1	17:1	17:1	17:1	17:1	17:1
Injection Timing- BTDC	27°-29°	27°-29°	27°-29°	27°-29°	27°-29°	27"-29"
Injection Pressure Kg/cm2	200	200	200	200	200	200
Spec. fuel consumption g/bhph	185	200	200	200	200	200
Lub. Oil consumption g/bhph	1.75	1.75	1.75	1.75	1.75	1.75
Lub. Oil sump capacity -Ltrs.	2.85/3.4	3.4	3.4	6.8	6.8	6.8
Fuel Tank Capacity Ltrs.	6.5/11	11	11	11	11	11
Weight Nett (Dry)-Kg.	155/170	190	190	255	290	290
Weight Gross-Kg.	225/240	260	260	325	360	365
Packing case size-mm	840x660x965	840x660x965	840x660x965	990x690x965	990x690x965	990x810x965
Volume M3	0.535	0.535	0.535	0.66	0.66	0.77

## MARINE INDUSTRIES

TECHNICAL DATA	SFS - 8 CM	VF-10 CM	MS-12 CM	FISHER 114 CM	VC -16. CM	VF-20 CM	MS-24 CM	FISHER 228 CM
No. of Cylinders	1	1	1	1	2	2	2	2
HP/KW	8/5.9	10/7.4	12/8.8	14/10.3	16/11.8	20/14.7	24/17.6	28/20.6
RPM Crankshaft	1800	1800	1800	1800	1800	1800	1800	1800
RPM Camshaft	900	900	900	900	900	900	900	900
BORE mm	87.5	95	102	114	87.5	95	102	114
STROKE mm	110	110	116	116	110	110	116	116
Torque at Crankshaft -Kgm	3.182	3.97	4.772	5.568	6.36	7.95	9.54	11.136
Torque at Camshaft-Kgm	6.364	7.95	9.545	11.136	12.7	15.90	19.0	22.272
Compression Ratio	17:1	17:1	17:1	17:1	17:1	17:1	17:1	17:1
Injection Timing-BTDC	27°-30°	27°-30°	27°-30°	27°-30°	27°-30°	27°-30°	27°-30°	27°-30°
Injection Pressure Kg/cm2	200	200	200	200	200	200	200	200
Spec. fuel consu mption g/bhph	185	190	190	200	200	200	200	200
Lub. Oil consumption g/bhph	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Lub, Oil sump capacity - Ltrs.	3.4	3.4	3.4	6.8	6.8	6.8	6.8	6.8
Fuel Tank Capacity Ltrs.	11	11	11	11	11	11	11	11
Weight Nett (Dry) - Kg.	180	180	190	190	270	270	290	290
Weight Gross - Kg.	250	250	260	260	345	345	365	365
Packing case size - mm	840x660 x965	840x660 x965	840x660 x965	840x660 x965	990x690 x965	990x690 x965	990x690 x965	990x69 x96
Volume M3	0.535	0.535	0.535	0.535	0.66	0.66	0.66	0.66

### GENERAL / AGRO INDUSTRIES (WATER COOLED

MODELS	HTCWP 3.5/5	VRS-5	CMS-6.5	SFS-7/8	VF-8/10	MS-10/12	FISHER 112/114	VC 114/16	VF 16/20	MS 20/24	FISHER 225/228
No. of Cylinders	1	1	1	1	1	1	1	2	2	2	2
BHP / KW	$\frac{3.5}{2.6} / \frac{5}{3.7}$	5 3.7	6.5 4.8	$\frac{7}{5.2} / \frac{8}{5.9}$	8 5.9 / 10 7.4	$\frac{10}{7.4}$ / $\frac{12}{8.8}$	$\frac{12.5}{9.2} / \frac{14}{10.3}$	$\frac{14}{10.3}$ / $\frac{16}{11.8}$	$\frac{16}{11.8} / \frac{20}{14.7}$	$\frac{20}{14.7}$ / $\frac{24}{17.7}$	$\frac{25}{18.4}$ / $\frac{28}{20.6}$
RPM Crankshaft	1500/2200	1500	1500	1500/1800	1500/1800	1500/1800	1500/1800	1500/1800	1500/1800	1500/1800	1500/1800
RPM Camshaft	750/1100	750	750	750/900	750/900	750/900	750/900	750/900	750/900	750/900	750/900
BORE mm	76	80	85	87.5	95	102	114	87.5	95	102	114
STROKE mm	76	110	110	110	110	116	116	110	110	116	116
Torque at Crankshaft - Kgm	1.67/1.63	2,385	3.10	3.34/3.18	3.82/3.98	4.77/4.78	5.96/5.57	6.68/6.37	7.63/7.96	9.54/9.55	11.93/11.14
Torque at Camshaft-Kgm	3.34/3.26	4.77	6.20	6.68/6.37	7.63/7.96	9.54/9.55	11.9/11.14	13.36/12.7	15.26/15.92	19.08/19.10	23.85/22.29
Compression Ratio	16.5:1	16.5:1	16.5:1	17:1	17:1	17:1	17:1	17:1	17:1	17:1	17:1
Injection Timing-BTDC	27°-29°	27°-29"	27°-29°	27°-29°	27°-29°	27°-29°	27°-29°	27°-29°	27°-29°	27°-29°	27"-29"
Injection Pressure Kg/cm2	200	200	200	200	200	200	200	200	200	200	200
Spec. fuel consu mption g/bhph	185	185	185	185	190	190	200	200	200	200	200
Lub. Oil consumption g/bhph	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Lub. Oil sump capacity - Ltrs.	1.5	2.85	2.85	3.4	3.4	3.4	3.4	6.8	6.8	6.8	6.8
Fuel Tank Capacity Ltrs.	3.5	6.5	6.5	11	11	11	11	11	11	11	11
Weight Nett (Dry)-Kg.	80	155	155	165	165	180	180	265	265	285	285
Weight Gross - Kg.	120	225	225	235	235	235	250	335	335	365	365
Packing case size - mm	510X457 x610	686x660 x965	686x660 x965	686x660 x965	686x660 x965	686x660 x965	686x660 x965	840x660 x965	840x660 x965	840x660 x965	840x660 x965
Volume M1	0.14	0.44	0.44	0.44	0.44	0.44	0.44	0.535	0.535	0.535	0.535