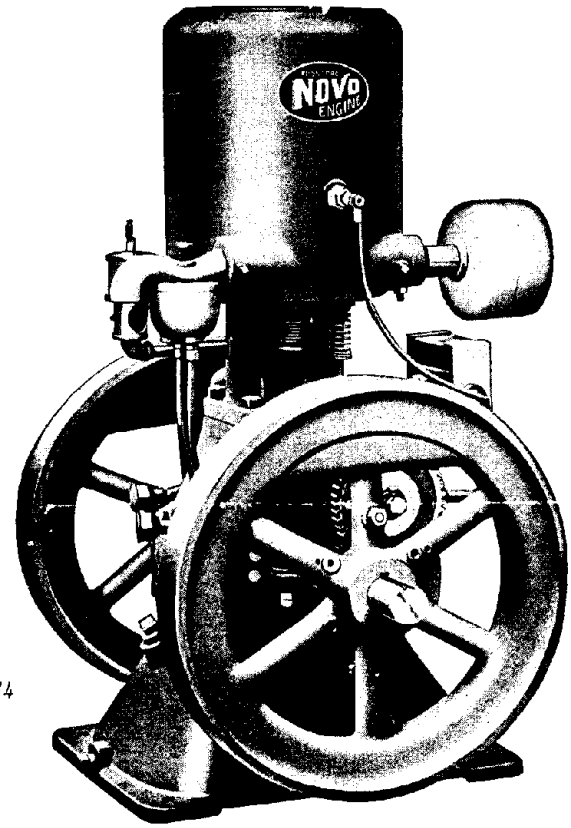


Figure 834

Novo Single Cylinder Type S Engines

(Gasoline Type)

NOVO Single Cylinder S Engines are vertical, hopper cooled type. They are furnished to operate on gasoline, gas or kerosene. The illustration above shows the gasoline type; description and illustration of Figure 836, page 2, covers the Novo Type S single cylinder kerosene engine. Engines using gas are similar to the gasoline type except that a gas mixer is used in place of the carburetor. A combination gas mixer and gasoline carburetor is furnished, when so ordered, at extra cost, so that engine may be operated on either gas or gasoline.

The gasoline type S single cylinder is regularly equipped with hit-and-miss governor, which regulates the amount of fuel needed to keep the engine running at its set speed. A throttling governor can be furnished on gasoline type S single cylinder engines, when wanted, at extra cost. The throttling governor is required where it is desired to have engine operate very close to a set speed. This is especially desirable when engine is to be used to drive generators, centrifugal pumps or work of similar nature. Throttling governor is standard equipment on Novo Kerosene Type S single cylinder engines. All Novo type S single cylinder engines have Wico high tension magneto with manual advance and retard lever. This magneto has been used successfully on Novo engines for many years and is a simple and positive ignition system.

Novo Type S single cylinder engines described on this page use gasoline for fuel. Average fuel consumption is 9/10 pint per horsepower hour, assuming full load operation. Less fuel is required when engines is operating under less than full load.

Novo type S single cylinder engine (except 1½ H.P.) can be furnished to operate in either direction of rotation. Engines are regularly furnished to run right hand, or clockwise direction of rotation, looking at engines from starting side. Reversal of direction of rotation effected by changing cam, cam gear and governor weight. The 1½ H.P. single cylinder engine will operate right hand or clockwise direction of rotation only, although crankshaft of this engine may be reversed, if necessary.

Novo single cylinder Type S gasoline engines are regularly equipped with high tension magneto, spark plug, muffler, cylinder oiler, oil can, can of engine oil, starting crank, wrenches and instruction book.

SPECIFICATIONS

H. P.	Bore	Stroke	R.P.M.	Bare Wt. Lbs.	Approx. Ship. Wt. Lbs.	Crankshaft Size Inches	Plain Pulleys First dimensions is diameter— Second dimension is face	Friction Clutch Pulleys (Extra) First dimension is diameter— Second dimension is face	Code Gasoline Engine	Code Kerosene Engine
1½	3¾	4	625	240	290	1⅛	*4″ x 3″		Nobby	Kerby
2	4	4½	625	285	340	1½	5″x4″-*6″x4″-8″x5″-10″x4″	8″x6″-10″x6″-12″x6″	Nobek	Kerox
3	4½	5¼	550	370	425	1½	5″x4″-*6″x4″-8″x5″-10″x4″	8″x6″-10″x6″-12″x6″	Nookd	Kerig
4	5	6	500	500	560	1¾	5″x4″-6″x4″-*8″x5″-10″x4″	8″x6″-10″x6″-12″x6″	Nonal	Kerha
6	5¾	7	475	725	800	2	8″x6″-10″x6″-12″x6″-*14″x6″-16″x6″	10″x6″-12″x6″-14″x6″	Nodos	Kerjr
8	6½	7½	450	990	1080	2⅜	*16″x6″-18″x8″-20″x8″	14″x8″-16″x8″-18″x8″-20″x8″	Nodul	Kerku
10	7½	8½	425	1375	1460	2⅜	*18″x8-20″x8″	14″x8″-16″x8″-18″x8″-20″x8″	Nodax	Kerlm

*Pulley regularly furnished.

Novo Kerosene Engines

(Throttling Governed)

(Figure 836)

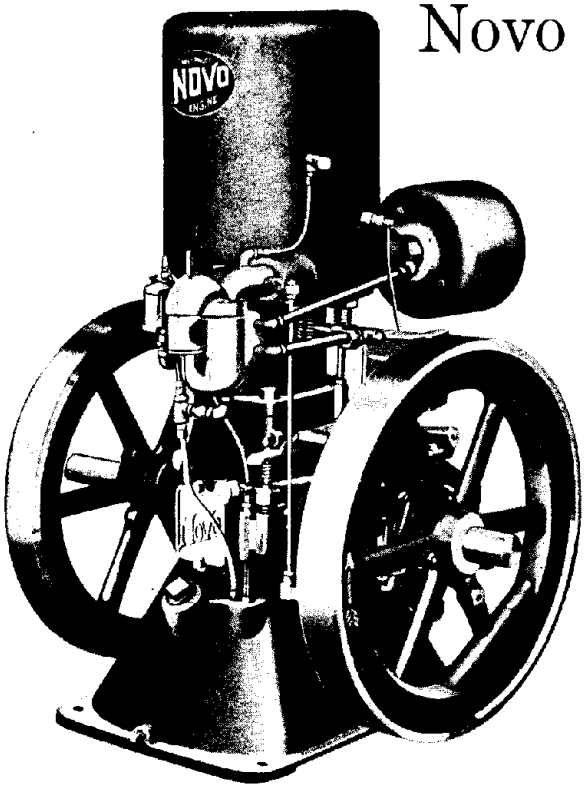


Fig. 836 Novo Kerosene Engine

THE Novo single cylinder kerosene engine is of the same general design as the Novo gasoline engine. It is of the four-cycle type and has a throttling governor which proportions the charge to the amount of work the engine is called upon to do and maintains a uniform temperature in the combustion chamber which is essential for the successful burning of any low grade fuel. The kerosene engine is used chiefly in foreign countries or where gasoline is not easily available or prohibitive in cost.

Novo kerosene engines are furnished in the following sizes at a slight additional cost over Novo gasoline engines: 1½, 2, 3, 4, 6, 8 and 10 H P

Also the following sizes of back-geared engines: 1½, 2, 3, 4, 6, 8 and 10 H P

Wico high tension magneto ignition is standard equipment for Novo kerosene engines.

While the Novo kerosene engine embodies all the characteristics of the Novo gasoline engine, it is not a gasoline engine with a kerosene attachment. It is designed and built to operate on kerosene but at the same time it will operate satisfactorily on gasoline.

The Novo kerosene engine is water cooled, but the cylinder and water jacket are so designed that they cannot be damaged by freezing.

Novo Back-Geared Engines

(Figures 833 and 274)

NOVO single cylinder gasoline and kerosene engines up to and including 10 H P can be furnished with substantial back-gearings for use with pumps of different styles.

All bearings of the back-gearing are babbitted and on the 2 HP and larger the bearings are adjustable for wear. All gears are machine cut.

Fig. 833 shows the 4 H P Novo back-geared engine. This is a very strong, heavy back-gear suited to the hardest kind of work.

Note how the main base casting runs under and supports the gears.

Back-geared engines are ordinarily used for pumping, and have furnished power to operate pumps used for sprinkling lawns, road pavers, bridge cofferdams, golf courses, transferring oil or water, sewer construction, washing gravel, and deep well work.

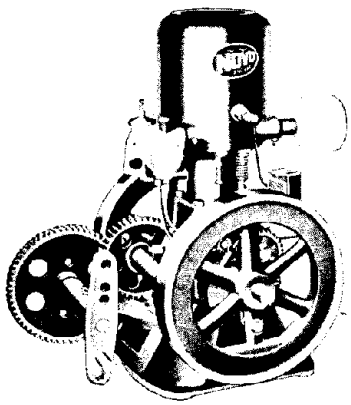


Fig. 274—1½ H P Engine with Integral Jack

Be sure to give engine and outfit numbers in ordering back-geared engines for replacements.

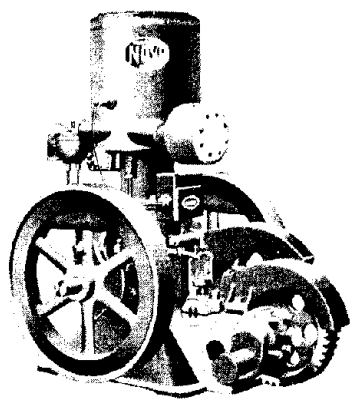
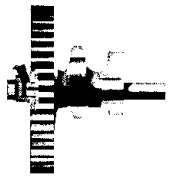


Fig. 833—Novo Back-Geared Engine

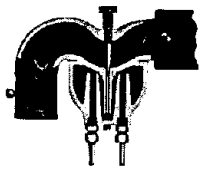
Novo Single Cylinder Engines

Advantages of Novo Design

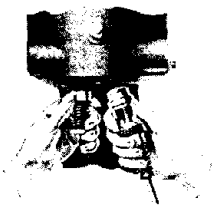
Features of Novo Single Cylinder Frost Proof Engines. There are seven sizes of Novo Single Cylinder Engines manufactured, from 1½ to 10 H.P. They are used for both stationary and portable work. Light Weight, Economical, Reliable Power.



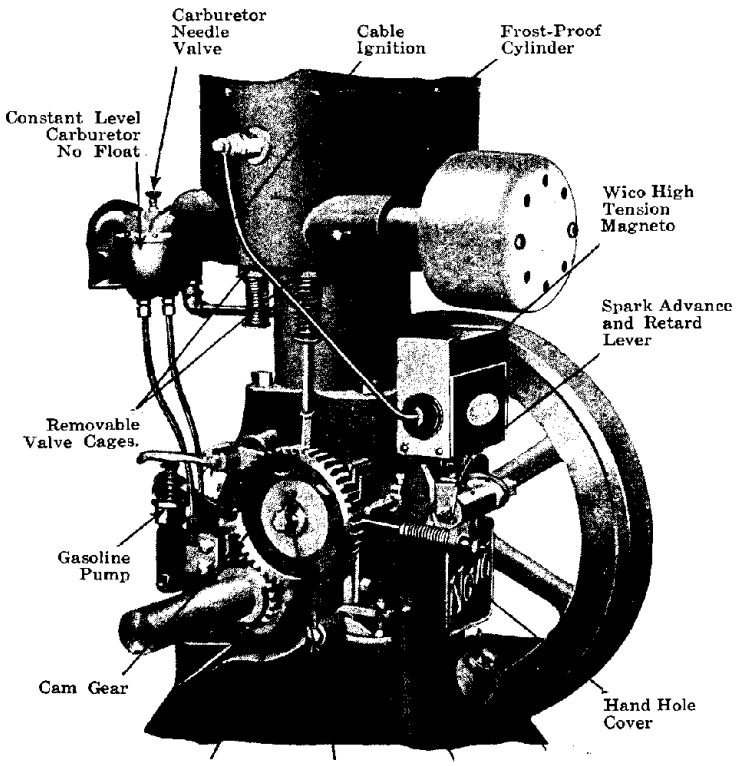
Cam, Oiler, Cam Gear, Exhaust Valve Cam and Eccentric for Operating Magneto.

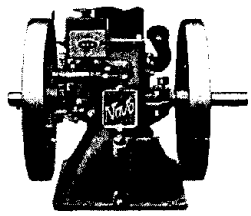


Sectional view of constant level carburetor. No floats.

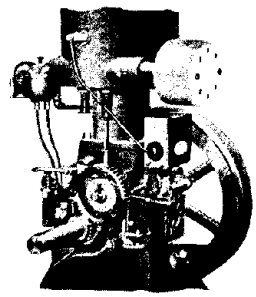


Inlet and Exhaust Valves in removable valve cages. Both can be removed without disturbing other parts.





Base of engine. Lower part is fuel reservoir.



Showing valve, magneto and governing mechanism. Flywheel on starting side of engine removed.

COOLING—Large size water hopper above and around cylinder insures proper cooling. There are no restricted water passages, and freezing of water in hopper cannot damage cylinder. Novo single cylinder engines are guaranteed absolutely frost proof.

Vertical—Novo single cylinder engines are vertical, four cycle type, with enclosed crank case. Splash system of oiling is used. Simplest and best for portable engines.

Balance—Two flywheels balance engine perfectly. Reciprocating parts as light as practical without sacrificing strength.

Equipment—Novo single cylinder engines are equipped with Wico high tension magneto, ignition cable, spark plug, pulley, starting crank, muffler, oil can, adjustable end wrench, small can of engine oil, and instruction book.

Material—The best materials obtainable are put into Novo engines. Frequent analysis of iron and steel, and rigid inspection of parts enable us to build a uniform product.

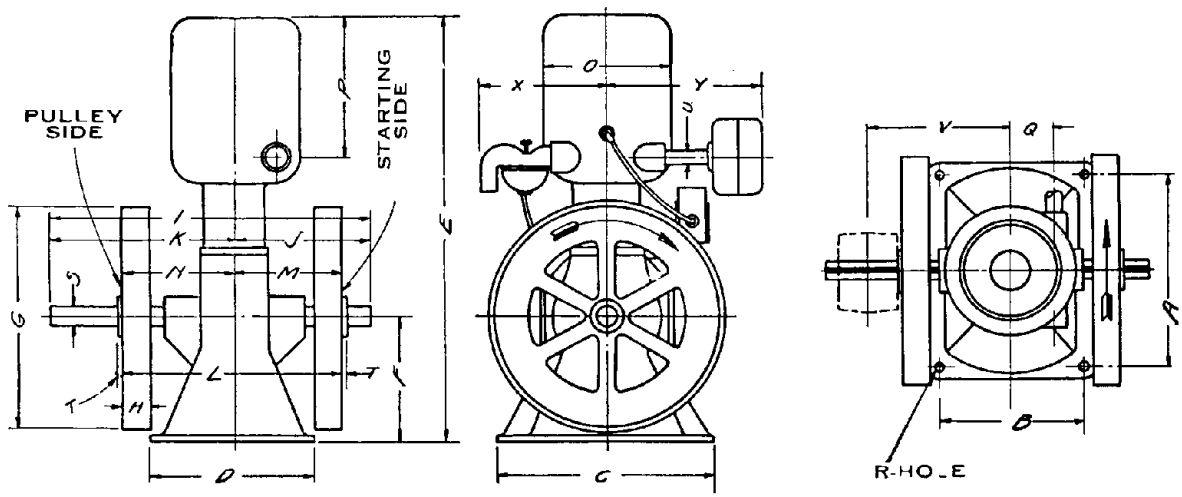
Fuel Reservoir Capacity

1½ H.P.—1¾ gallons	6 H.P.— 6 gallons
2 H.P. and 3 H.P.—2½ gals.	8 H.P.— 9 gallons
4 H.P.—3½ gallons	10 H.P.—11 gallons

Dimensions of Novo Gasoline Engines

H.P.	DIMENSIONS IN INCHES																					Key Seat		Pulley		Bare Wt. Lbs.	Shipping Wt. Lbs.	Boxed for Export		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	Wide	Deep	Dia.	Face			Wt. Lbs.	Cu. Ft.	Dimensions in Inches
1½	10¾	11¼	15	13	28⅝	8½	14¾	1¾	22¼	10⅛	12⅛	16 9/16	8⅝	8	8¾	9 1/16	3	17/32	1⅛	⅛	1	9⅞	5/16	7/64	4	3	240	290	375	11	33 x 24 x 24
2	15	11	17	13	31⅞	9⅞	14¾	1¾	26⅝	12 5/16	14 5/16	17⅜	9¼	8½	9½	9¼	3¼	5/8	1½	⅛	1¼	10½	7/16	11/64	6	4	285	340	440	15½	36 x 31 x 24
3	15	11	17	13	34¼	9⅞	18	2¼	26⅝	12 5/16	14 5/16	18¼	9⅝	8⅝	10	11⅞	3⅜	5/8	1½	¼	1¼	11⅛	7/16	11/64	6	4	370	425	550	17	38 x 32 x 24
4	17	12	20	15	37⅝	10⅞	20	2½	28⅜	13 1/16	15 5/16	20½	10⅜	9¾	11⅜	12⅛	4	5/8	1⅝	¼	1¼	12⅝	7/16	11/64	8	5	500	560	710	21	42 x 32 x 27
6	20½	14½	24	18	43¾	13¼	24	2¾	32⅛	14 3/16	17 13/16	23⅛	12⅛	11	13	14 15/16	4½	¾	2	⅛	2	14⅜	½	13/64	14	6	725	800	1000	29	48 x 35 x 30
8	22½	18	26	20	50¼	14⅝	26¾	3	35½	16¼	19¼	26⅜	13⅝	12¾	15	15¼	5⅜	⅞	2 3/16	0	2	16⅜	⅝	17/64	16	6	990	1080	1350	42	54 x 37 x 36
10	24½	20¾	28	23	56⅛	16¼	29¼	3⅜	36½	17¼	19¼	27½	13¾	13¾	16½	18⅜	5¾	⅞	2⅜	½	2½	18⅜	⅝	17/64	18	8	1375	1460	1725	50	59 x 41 x 36

H.P.	DIMENSIONS IN MILLIMETERS																					Key Seat		Pulley		Bare Wt. Kgs.	Shipping Wt. Kgs.	Boxed for Export		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	Wide	Deep	Dia.	Face			Wt. Kgs.	Cu. M.	Dimensions in M/M
1½	273	286	381	330	727	216	375	44.0	565	257	308	414	211	203	222	229	76.2	13.5	28.6	3.17	25.4	251	7.94	2.77	101	76	109	132	170	.311	838 x 610 x 610
2	381	279	432	330	807	251	375	44.0	676	313	362	441	235	206	241	235	82.5	15.9	38.1	3.17	31.8	267	11.1	4.36	152	101	130	155	200	.439	914 x 788 x 610
3	381	279	432	330	870	251	457	57.0	676	313	363	463	244	219	254	302	85.7	15.9	38.1	6.35	31.8	283	11.1	4.36	152	101	168	194	250	.481	965 x 813 x 610
4	432	305	508	381	956	277	508	64.0	721	332	389	521	273	248	289	308	102.0	15.9	44.4	6.35	31.8	321	11.1	4.36	203	127	227	255	322	.594	1067 x 813 x 686
6	521	368	609	457	1111	337	609	69.9	816	363	452	588	308	279	330	379	114.0	19.0	50.8	3.17	50.8	365	12.7	5.15	355	152	329	364	454	.821	1220 x 889 x 762
8	572	457	660	508	1276	371	679	76.0	902	413	489	670	346	324	381	387	136.0	22.2	55.6	.....	50.8	410	15.9	6.74	406	152	449	491	613	1.19	1372 x 940 x 914
10	622	527	711	584	1425	413	743	86.0	927	438	489	698	349	349	419	480	146.0	22.2	60.3	12.7	63.5	460	15.9	6.74	457	203	624	664	783	1.41	1500 x 1042 x 914



Dimensions of Throttling Governed Kerosene Engines

H.P.	DIMENSIONS IN INCHES																					Key Seat		Pulley		Bare Wt. Lbs.	Shipping Wt. Lbs.	Boxed for Export		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	Wide	Deep	Dia.	Face			Wt. Lbs.	Cu. Ft.	Dimensions in Inches
1½	10¾	11¼	15	13	28⅝	8½	14¾	1¾	24¾	12⅝	12⅛	18 7/16	10 5/16	8 1/16	8¾	9 1/16	3	17/32	1⅛	⅛	1	9⅞	5/16	7/64	4	3	285	300	375	12	33 x 27 x 23
2	15	11	17	13	31⅞	9⅞	18	2¼	28⅝	14 5/16	14 5/16	21	12¼	8¾	9½	9¼	3¼	5/8	1½	¼	1¼	10½	7/16	11/64	6	4	370	400	480	16½	36 x 33 x 24
3	15	11	17	13	34¼	9⅞	18	2¼	29½	14 9/16	14 9/16	21	12¼	8¾	10	11⅞	3⅜	5/8	1½	¼	1¼	11⅛	7/16	11/64	6	4	410	470	650	21	38 x 36 x 26
4	17	12	20	15	37⅝	10⅞	20	2½	31⅛	15 5/16	15 5/16	22⅛	13⅛	9¾	11⅜	12⅛	4	5/8	1¾	¼	1¼	12⅝	7/16	11/64	8	5	540	600	830	24	42 x 36 x 27
6	20½	14½	24	18	43¾	13¼	24	2¾	35⅝	17 13/16	17 13/16	25 11/16	14 11/16	11	13	14 15/16	4½	¾	2	⅛	2	14⅜	½	13/64	14	6	800	830	1050	33	48 x 40 x 30
8	22½	18	26	20	50¼	14⅝	26¾	3	38½	19¼	19¼	29⅜	16⅜	12¾	15	15¼	5⅜	⅞	2⅜	0	2	16⅜	⅝	17/64	16	6	1040	1165	1440	45	54 x 40 x 36
10	24½	20¾	28	23	56⅛	16¼	29¼	3⅜	39½	20¼	19¼	30¼	16½	13¾	16½	18⅜	5¾	⅞	2⅜	½	2½	18⅜	⅝	17/64	18	8	1450	1550	1850	54	60 x 43 x 36

H.P.	DIMENSIONS IN MILLIMETERS																					Key Seat		Pulley		Bare Wt. Kgs.	Shipping Wt. Kgs.	Boxed for Export		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	Wide	Deep	Dia.	Face			Wt. Kgs.	Cu. M.	Dimensions in M/M
1½	273	286	381	330	727	216	375	44.0	633	321	320	468	262	206	222	229	76.2	13.5	28.6	3.17	25.4	251	7.94	2.77	101	76	130	136	170	.34	839 x 686 x 585
2	381	279	432	330	807	251	375	57.0	727	364	364	534	311	222	241	235	82.5	15.9	38.1	6.35	31.8	267	11.1	4.36	152	101	168	182	218	.47	915 x 839 x 610
3	381	279	432	330	870	251	457	57.0	740	370	370	534	311	222	254	302	85.7	15.9	38.1	6.35	31.8	283	11.1	4.36	152	101	186	214	295	.60	965 x 915 x 660
4	432	305	508	381	956	277	508	64.0	791	395	395	581	333	248	289	308	102	15.9	44.4	6.35	31.8	321	11.1	4.36	203	127	245	272	377	.68	1068 x 915 x 686
6	521	368	609	457	1111	337	609	69.9	905	452	452	652	373	279	330	379	114	19.0	50.8	3.17	50.8	365	12.7	5.15	355	152	363	377	477	.94	1220 x 1016 x 762
8	572	457	660	508	1276	371	679	76.0	978	489	489	740	416	324	381	387	136	22.2	55.6	....	50.8	410	15.9	6.74	406	152	472	530	653	1.27	1372 x 1016 x 915
10	622	527	711	584	1425	413	743	86.0	1003	514	489	768	419	349	419	480	146	22.2	60.3	12.7	63.5	460	15.9	6.74	457	203	658	705	840	1.63	1524 x 1093 x 915

NOVO ENGINE CO.
Clarence E. Bement, Vice-Pres. & Gen. Mgr.
LANSING — MICHIGAN
U. S. A.

ENGINES
Single Cylinder
Type S

DOMESTIC NET PRICE LIST No. 130
January 1, 1930
Terms: 2 per cent. 10 days. Net 60 days
F. O. B. Cars, Lansing, Mich.

Engine Size H. P.	Gasoline Engine‡ Code	Gasoline Engine‡ PRICE High Tension Magneto Ignition	Add for Throttle Governor on Gasoline Engine	Kerosene Engine Throttle Governed Code	Kerosene Engine Throttle Governed PRICE High Tension Magneto Ignition	Approx. Shipping Weight Pounds (Gasoline)	Approx. Shipping Weight Pounds (Kerosene)	Standard Pulley Size, Inches	Back Geared Engine Extra	*Steel Truck Extra
1½	Nobby	**$80.00**	**$16.00**	Kerby	**$100.00**	290	300	4x3	**$20.00**	**$25.00**
2	Nobek	**100.00**	**16.00**	Kerox	**120.00**	340	400	6x4	**35.00**	**25.00**
3	Nookd	**109.00**	**16.00**	Kerig	**129.00**	425	470	6x4	**35.00**	**25.00**
4	Nonal	**137.00**	**22.00**	Kerha	**163.00**	560	600	8x5	**68.00**	**25.00**
6	Nodos	**190.00**	**22.00**	Kerjr	**215.00**	800	830	14x6	**75.00**	**25.00**
8	Nodul	**295.00**	**27.00**	Kerku	**328.00**	1080	1165	16x6	**150.00**	**80.00**
10	Nodax	**400.00**	**27.00**	Kerlm	**397.00**	1460	1550	18x8	**150.00**	**80.00**

*Add for weight of Steel Truck, 200 lbs. ‡Novo Single Cylinder Engines can be furnished to operate on gas. Additional price for gas mixer, $9.00 on 1½ to 6 H. P.; $16.00 on 8 and 10 H. P. If gasometer is wanted add prices as shown below. EQUIPMENT—Novo Single Cylinder Engines are regularly equipped with High Tension Magneto, spark plug, muffler, cylinder oiler, oil can, can of engine oil, starting crank, wrenches and instruction book.

Price Includes Standard Pulley.

PLAIN PULLEYS

For Engine Sizes—H. P.	Diameter, Inches	Face, Inches	Price
1½	4	3	**$4.60**
2-3-4	5	4	**5.30**
2-3-4	6	4	**4.40**
2-3-4	8	5	**5.30**
2-3-4	10	4	**6.10**
6	8	6	**6.50**
6	10	6	**7.70**
6	12	6	**8.85**
6	14	6	**9.10**
6-8	16	6	**10.25**
8-10	18	8	**14.75**
8-10	20	8	**16.85**

HAVANA FRICTION CLUTCH PULLEYS

FOR 2 H. P. to 10 H. P. INCLUSIVE

In Making Up these Prices Allowance is Made for Omission of Plain Pulley

Diameter, Inches	6-inch Face 2 to 8 H. P.	6-inch Face 10 H. P.	8-inch Face 2 to 8 H. P.	8-inch Face 10 H. P.
8	**$22.00**			
10	**22.00**		**$25.50**	
12	**25.50**		**26.75**	
14	**27.50**		**29.50**	
16	**33.00**	**$42.00**	**34.50**	**$43.00**
18	**34.50**	**44.00**	**35.75**	**45.75**
20	**37.50**	**46.75**	**39.75**	**48.50**

GASOMETERS

1½ to 6 H. P.	8 and 10 H. P
$19.00	**$22.50**

COMBINATION GAS and GASOLINE CARBURETOR—INCLUDING INDEX COCK

When Installed on Single Cylinder Engine Add	1½ H. P.	2 H. P.	3 H. P.	4 H. P.	6 H. P.	8 H. P.	10 H. P.
	$9.00	**$9.00**	**$10.25**	**$10.25**	**$11.75**	**$14.50**	**$14.50**