International Engine Model

C-549

STEWART 810097

UNIT MOUNTED RADIATOR FAN AIR FLOW PUSHER
FAN GUARD 105-399
DUCT FLANGE 105-401

Solenoid Valve 1½"
Magnetrol 18D16 (N.C.)

HEADER 3½"

IMPCO CARBURATOR

4-6 oz Vapor fuel pressure

STRAINER (NOT SID ONCE?)
1½" Fuel Flex

DRY MANIFOLD 3½"
HEADER 3½"
header
100-88-18-1
2" flex connector

NAT. GAS

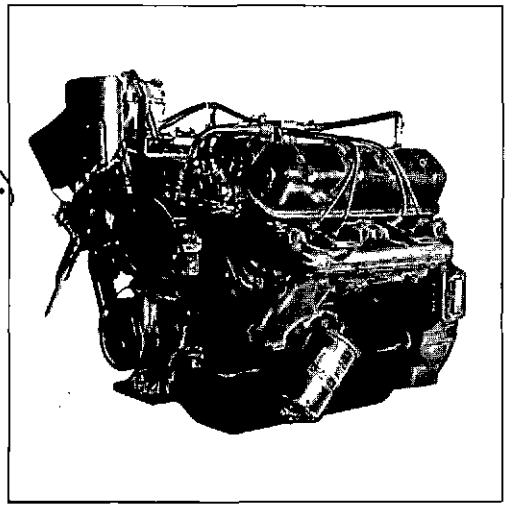
4-6 oz

12V 1½ NPT N.C.
MAGNETROL 18D16
Y

Fuel Filter 1½" Y type
impco VAPOR Fuel Reg.

x Fisher primary Reg.
S-201.

1½" Fuel Flex Bronze



Gasoline/Natural gas **178 hp @ 2600 rpm (natural gas)**

Standard Engine Includes:

Intake manifold.
Exhaust manifold, down outlet. 3½"
Distributor ignition (12 volt), spark plugs and cables.
→ Electric 12 volt cranking motor, 37 amp. alternator.
Lubricating oil filter.
Flywheel for 11½ in. driving ring clutch.
Flywheel housing, industrial, SAE No. 2.
Positive crankcase ventilation.
Full pressure lubrication pump, oil cooler and oil pan.
Water pump.
Front mounting bracket. (optional)
Tachometer drive, 2:1 ratio.
Gear-driven mechanical governor. (optional)

General Specifications

Max. hp @ rpm (natural gas)	178 @ 2600
Peak Torque @ rpm (natural gas)	395 @ 1200
Number of cylinders	8
Bore and stroke, in.	4.500 x 4.312
Displacement, cu. in.	548.7
Compression ratio: gasoline	7.57:1
natural gas	9.5:1
Engine rotation, flywheel end	counterclockwise
Weight, lbs. (approximate)	1240

Features

Machined combustion chambers for efficient combustion.

Heavy-duty replaceable, tri-metal main bearings.

Controlled flow cooling system assures fast warmup and uniform engine temperature.

Gear type oil pump with full-flow filter.

Engineering Data

water flow @ 1800 rpm	65 GPM
Water flow @ 2400 rpm	83 gpm
Fan to crank ratio	1:1
Heat rejection @ 2400 rpm (full load)	35.0 btu/hp-min
Air flow @ 2400 rpm (Int.)	320 cfm
Exhaust gas flow @ 2400 rpm (Int.)	972 cfm
Max. permissible restrictions: Intake system	8" H_2O initial 20" H_2O final
Exhaust system	20" H_2O
Cooling system capacity: Engine	22 U.S. quarts
Lubricating system capacity	15 U.S. quarts

* Note ON HOUSED UNITS USE END INLET MUFFLERS

4550 BTU/min Heat Rejection

1800 RPM 172 H.P. - 12V - 72 AMP BATTERY

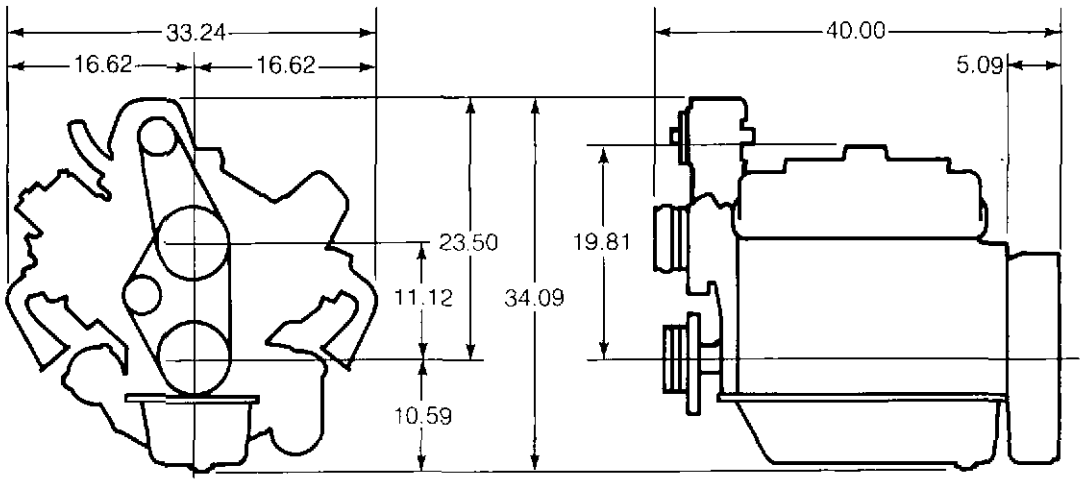
AIR VELOCITY 1460 FPM
AIR Volume 7670 CFM @ 1.4 Hg STATIC Pressure

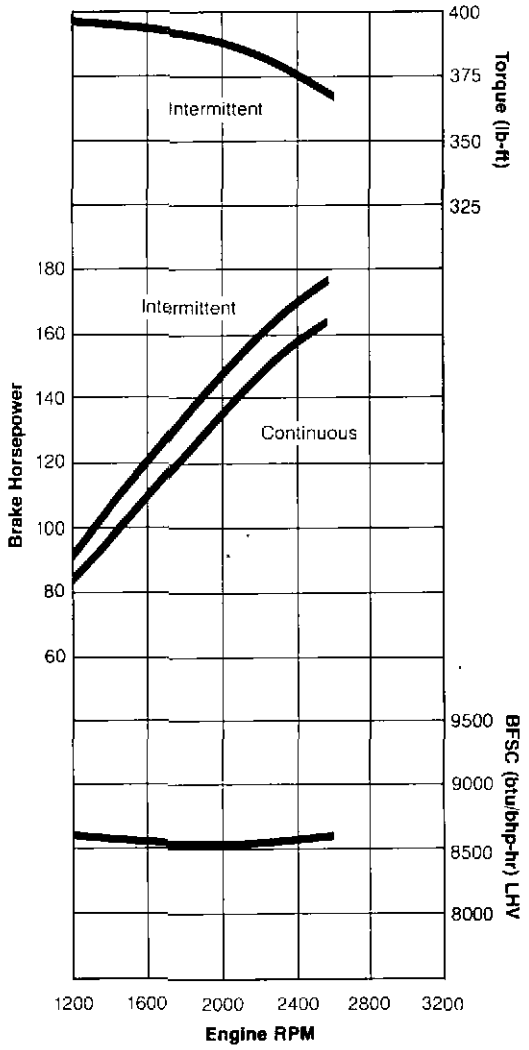
@ 75 KW 9.83 Gal./hr. gasoline
10.28 C F HR Nat. GAS

C-549

29 AU N.G.
30 AU L.P. and gasoline

Dimensions in inches





Engine Performance Curve

Engine Performance Curve

4.500 in. (114.3 mm) x 4.312 in. (109.5 mm) x 8 cyl. engine

Displacement—548.7 cu. in. (8991cc)

Performance curves are for a complete engine less fan and air cleaner, alternator not charging.

This chart represents performance at approx. 500 ft. altitude and 85°F air temperature (SAE J-816a). Thereafter derate 3½% per 1000 ft. altitude and 1% each of 10°F temperature increase.

Fuel: Natural Gas LHV 936 btu/cu. ft.

INTERNATIONAL HARVESTER

BILL OF MATERIAL INFO

STOCK IHC 549 ENGINES

ITEM	P/N	SUPPLIER
RADIATOR	810097	STUART
AIR CLEANER	FHG 08-0195	DONALDSON
BANDS (2 REQ'D)	P 4307	DONALDSON
HUMP HOSE	P 10-1290	DONALDSON
RADIATOR HOSE	GATES 26518 (1)	KL# 43309
" "	Gates 26612 (1)	KL# 31366
FAN GUARD	105-399	JIMP
DUCT FLANGE	105-[illegible]	"
ENG GAUGE	82306 W/SENDER 362 AJ	S. WARNER
	OP 352AY	"
	AMM 82311	

ITEMS NEEDED FOR CONVERTING STOCK IHC TO GASOLINE FUEL

1 - 294336 C91 FUEL PUMP I.H.C

1 - 532496 R1 GASKET "

1 - 338305 R93 INCLUDES AUTOMATIC CHOKE

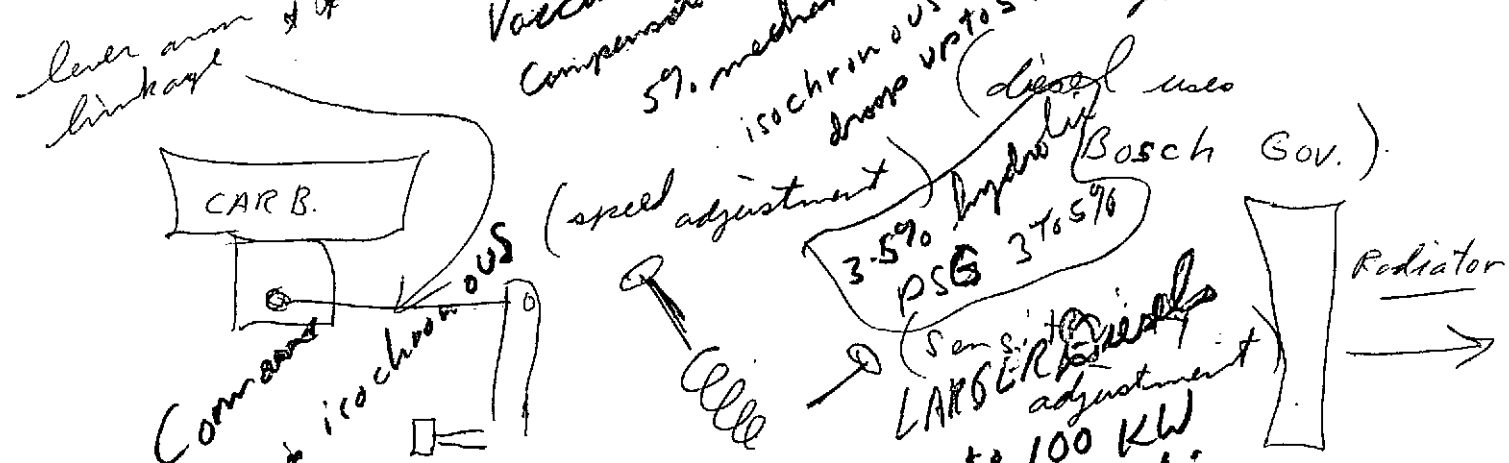
NOTE: CARBURETOR TO HAVE 2 C 66-154-75 MAIN DISCHARGE JETS FOR ANTI DIESELING

2 393168 R94 ANTI DIESELING SOLENOID VALVES

1 149901 R91 AIR HORN ADAPTER 90°

1 133918 R91 CC-171 EXHAUST MANIFOLD GASKET SET

Pierce Governor on I.H. Engine



No Load adjustment
(usually out or CCW)
adjust when no load speed is high

Note* speed and sensitivity are interactive
more speed more sensitivity

adjust for ~~least~~ Least amount of speed change from no load to full load w/o hunting.

** shorten linkage so butterfly is not completely open. about last 1/8 of stroke has no effect. Towards Full load gov. gets into this area of operation but has no effect on max speed. Gov must not

number L to R

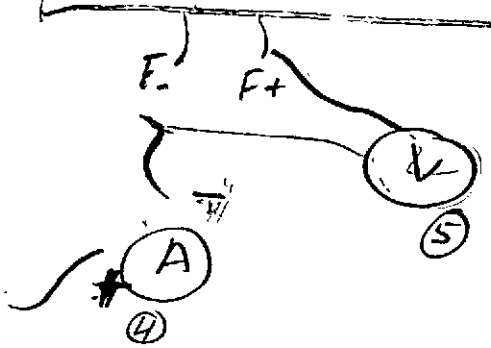
Load

V A W
① ② ③

VA P.F.

Hertz
FAST

D.C. Current of Voltage regulator



ON 76121 B27804

85 KW 405 AMPS?

Normal oil Pressure in IHC549 AUG9530 50 PSI ?

Cummins diesel ?

(40-60 ?)

75-100

HOW close do the L.B. indicators on T.P. coincide with actual meter readings?

40.0°C = 104.0° F

37.5°C = 99.5° F

40

00

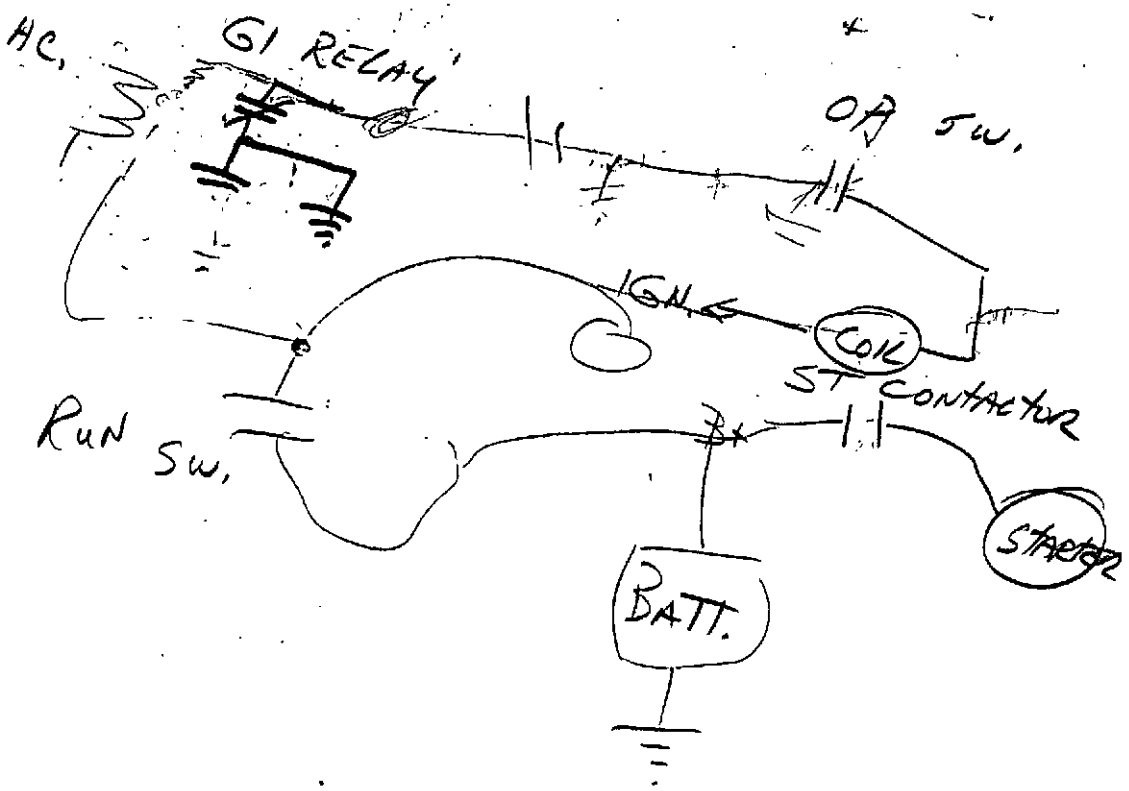
Would it work more efficiently if it were cooler? any idea

20 to 30 amps more would ?

405 to 425 that would be 5% more some maybe

what is that Noisy thing?

How Big?



142 ARABS Fought

154 JEWS For

69 DAYS OVER

5 OIL wells

WHO WON?

710 77345

Wis. Eng.
NOTE

40.00
2011

adaptors

28 NG

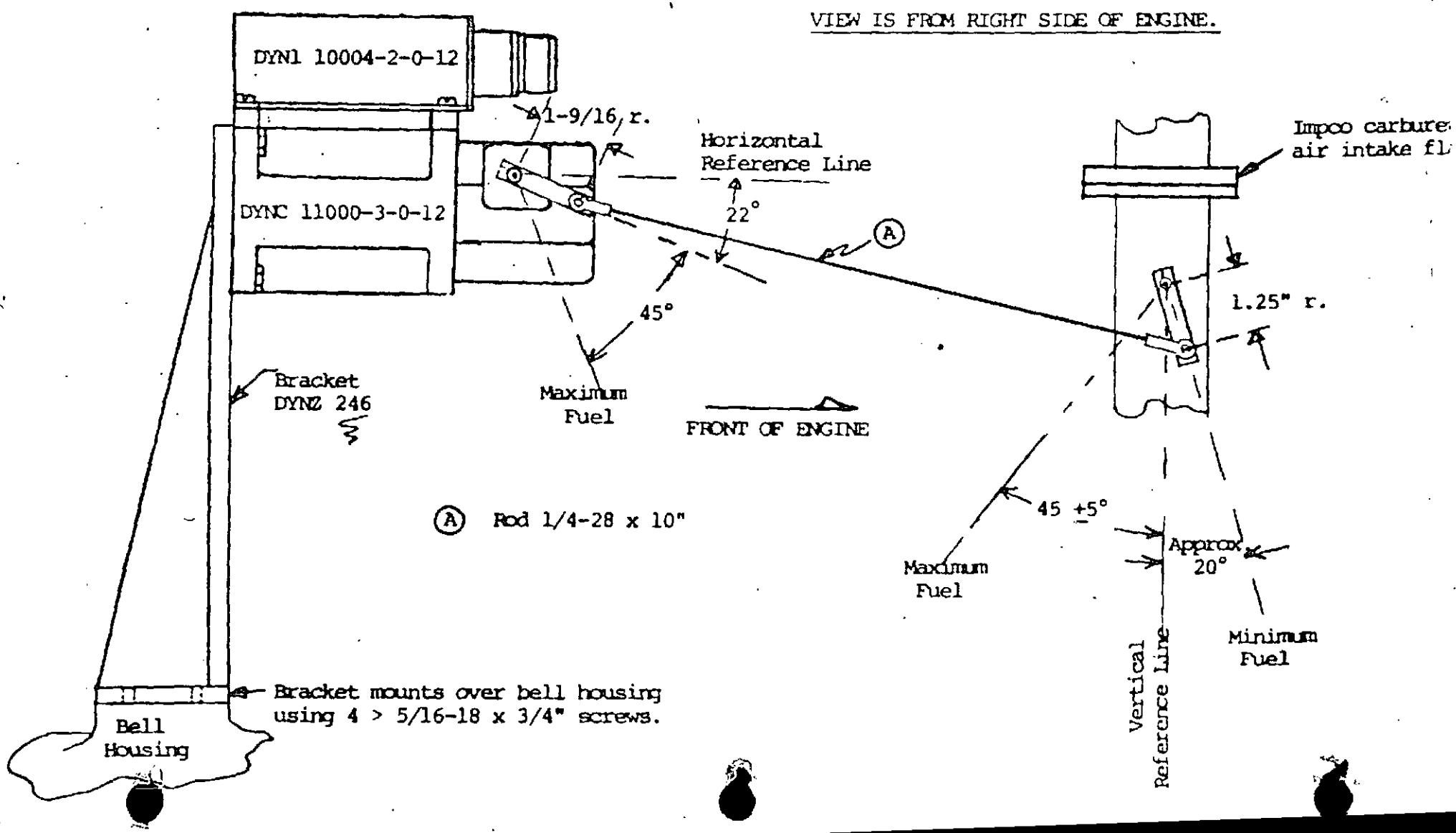
32 LPG

Remove small diaphram from regulator

5/8 ID Sure Flex heater Hose

Ring gear has 173 teeth. Use Actuator DYNC 11000-3-0-12. The magnetic pickup is installed by drilling 37/64 hole in the bell housing over the ring gear teeth. The pickup thread is 5/8-18. The pickup is located on the opposite side of the bell housing in this view between the first and second bolt ribs. Determine exact location of ring gear before drilling. Refer to attached actuator mounting bracket.

Note: If the engine is an Onan package gen-set, use alternate mounting method and a different bracket. This information is available.



Bracket for UV 549 Na-Gas Engine
using std. DYNA 1+1 GoV. and impco carb.