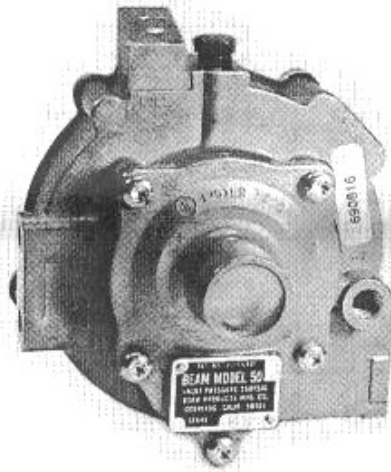


# IMPCO BEAM MODEL T50

## Dry-Gas Regulator



- LP Gas-Vapor
- Built-in vacuum controlled lockoff (optional)
- Optional manual primer
- For industrial trucks, tractors and small engines
- Several models available
- Meets C.A.R.B. Requirements for Tamper-Resistance
- U.L. Approved

MODEL	DESCRIPTION
T50	Standard dry-gas regulator, with idle, no primer
T50-A	Dry-gas regulator, less idle screw, with primer
T50-B	Dry-gas regulator, manual primer on back cover
T50-C	Dry-gas regulator, less idle, less vacuum lockoff, with primer
T50-D	Dry-gas regulator, less idle, less vacuum lockoff
T50-E	Dry-gas regulator, less vacuum lockoff
T50-G	Dry-gas regulator, less vacuum lockoff, with primer

**IMPORTANT NOTICE:** The installation of these regulators must include a listed automatic safety fuel shutoff device in accordance with N.F.P.A. regulations. IMPCO offers several electric and vacuum filter lockoffs as well as oil pressure and vacuum safety switches which meet this requirement.

### TECHNICAL SPECIFICATIONS

#### FUEL

Type ..... LP Gas (vapor withdrawal)  
 Internal Idle Lockoff ..... Built-in (depending on model)  
 Fuel Inlet ..... 1/4" FNPT  
 Fuel Outlet ..... 3/8" FNPT

#### PRESSURE

Inlet Pressure ..... 250 psi max.  
 Outlet Pressure ..... - 0.5" water column (nominal)  
 Primary Pressure ..... 4.5 ± 0.5 psig @ 25° C (77° F)  
 Primary Orifice ..... 1/8" diameter  
 Secondary Orifice ..... 3/16" diameter

#### CAPACITY

..... Up to 40 h.p.

#### MOUNTING POSITION

..... Vertical

#### VACUUM CONNECTION

..... 1/8" FNPT

#### DIMENSIONS

..... Approximately 4" O.D. x 3" thick

#### WEIGHT

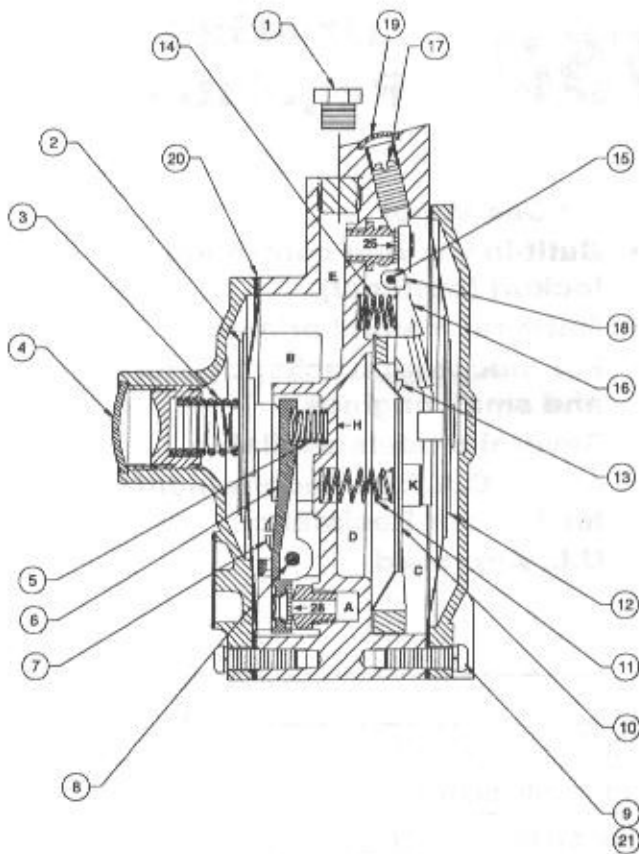
..... 22 oz.

#### SAFETY

..... U.L. listed and approved

#### TEMPERATURE

..... -40 to 121° C (-40 to 250° F)



10	4	21	W1-5	WASHER, SPLIT LOCK
1	1	20	2G-150	GASKET, DIAPHRAGM
1	1	19	P3-17956-1	PLUG, EXPANSION
2		18	103204-P	SCREW, PAN HD 10-32 UNF-2A X .25 L
1	1	17	S1-17367	SCREW, ADJUSTMENT
1	1	16	60-19B	LEVER ASSY, SECONDARY
1		15	60-18	PIN, SECONDARY PIVOT
1		14	60-17	SPRING, SECONDARY LEVER
4		13	103206-F	SCREW, PAN HD, 10-32 UNF-2A X .38 L
1	1	12	60-22A	DIAPHRAGM, SECONDARY
1		11	60-14	SPRING, VAC LOCK
1	1	10	60-15A	DIAPHRAGM ASSEMBLY, VAC LOCK
10	4	9	S1-1561-009	SCREW, 10-32UNF-2A X .62 TORX HEAD
1		8	60-3	PIN, PRIMARY PIVOT
2		7	103205-F	SCREW, FL HD 10-32 UNF-2A X.31 L
1	1	6	60-2B	LEVER ASSEMBLY, PRIMARY
1		5	60-4	SPRING, PRIMARY LEVER
1	1	4	P3-17956-6	PLUG, EXPANSION
1		3	60-8	SPRING, PRIMARY
1	1	2	60-10	DIAPHRAGM ASSEMBLY, PRIMARY
2		1	P3-13	PLUG, 1/8-27 NPT
ITEM		PART NO.		DESCRIPTION
Included in T50-RK Repair Kit				
Included in T50-RBK Rebuild Kit				

## REGULATOR OPERATION

LP-gas vapor enters at point (A), then passes into primary area (B) at point (28), where pressure is reduced from up to 250 p.s.i. at the tank to 4.5 p.s.i. in area (B). Fuel pressure against diaphragm (2) overcomes spring (3) and as movement increases, spring (5) will close lever (6). The primary diaphragm breather (not shown in drawing), is vented to secondary chamber so that rupture of this diaphragm would direct fuel into the carburetor.

Fuel now moves through passage (E), past secondary valve (25) into secondary area (C). As negative pressure (vacuum) is created at the carburetor venturi and is transmitted through the dry-gas hose to chamber (C) secondary diaphragm (12) is drawn down and contacts the secondary lever (16). Fuel will flow in proportion to air velocity through carburetor venturi, insuring an ideal mixture at all engine speeds.

Whenever the engine is operating, vacuum diaphragm (10) is down against floor (H) and spring (11) is compressed. The idle and starting adjustment is made with a tamper resistant screw (17) which regulates the whisker wire system (not shown), opening up the secondary orifice slightly (but only when the vacuum diaphragm is drawn down). Very little vacuum is needed to start this vacuum diaphragm travel; 0.2" Mercury to start and 0.5" Mercury for full travel. The instant the engine stops rotating, loss of vacuum in section (D) releases diaphragm (10), causing bumper (K) to push against secondary lever (16), overcoming action of whisker wire and ensuring 100% lockoff.

This patented Beam design will lock off primary pressures up to five times in excess of normal, permits starting without priming or choking.

