

ENGINEERING MEMO #228

TO: Memo Distribution
 FROM: B. Lewis
 SUBJECT: DIESEL CONVERSION STARTING AID

Please note the below listed new B/M Grp. Numbers which has recently been released by the Engineering Dept. for optional use with Diesel Conversion B/M Groups C-283, C-283.1, C-283.2, C-288 & C-288.1.

B/M Grp. No. C-291 "Diesel Thermostart"
 "Diesel Quick Start"

The B/M Grp. No. C-283, C-283.1, C-283.2, C-288 and C-288.1 will have no starting aid included as per B/M Grp. No. C-291 should be called out on the production order when it is desired to have the Perkins Diesel Engine equipped with Ether Quick Start equipment in place of the Thermostart equipment which is standard on the (engine as shown received from Perkins or type of equipment or none at all).

The "Diesel Thermostart" equipment is recommended as capable of starting the Perkins engine to +20° F.

The "Diesel Quick Start" (using Ether) is recommended as a starting aid where temperatures may reach 0° F.

List of Parts Affected - Group "A"

NAME	B OR M	OLD PART NUMBER	NEW PART NUMBER	I	A	REMARKS
Turner Quick Start Kit	B	-----	703376	NO	YES	New Part
Tank-Ether Quick Start	F	-----	704484	NO	YES	Furn.in 703376
Valve & Brkt. A.-3 cc Shot	F	-----	703377	NO	YES	Furn.in 703376
Atomizer-Quick Start	F	-----	704476	NO	YES	Furn.in 703376
Coupler-Tube to Valve	F	-----	704477	NO	YES	Furn.in 703376
Cable A.-Valve Cowl 34"	F	-----	703378	NO	YES	Furn.in 703376

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Group "A" (Cont'd.)

NAME	B OF M	OLD PART NUMBER	NEW PART NUMBER	I	A	REMARKS
Tube-48" Nylon	F	-----	704478	NO	YES	Furn.in 703376
Clamp-Ether Tank	F	-----	704485	NO	YES	Furn.in 703376
Plate-Ether Tank Brkt.Mtg.	M	-----	704479	NO	YES	New Part
Bolt - 1/4-20 x 1/2 Hex.	B	120706	-----	NO	YES	Increase Usage
Nut & Ext.Tooth L.W.1/4-20	B	271172	-----	NO	YES	Increase Usage
Plug-Quick Start Nozzle Adapter	F	-----	704480	NO	YES	Furn.with Eng. New Part Engg.
Brkt.-Control Cable Mtg.	M	-----	704481	NO	YES	New Part
Tube Assem.-Inj.Leak Off	M	-----	703380	NO	YES	New Part
Tube-Inj.Leak Off	M	-----	704482	NO	YES	New Part
Olive-3/16 Tube Rubber	F	-----	704469	NO	YES	Furn.W/Eng.
Nut-3/16 Tube Female	F	-----	704470	NO	YES	Furn.W/Eng.
Nut--1/2-20 Inv.Flare 3/16 Tube	B	-----	702966	NO	YES	Increase Usage

Please note that quick start nozzle adapter plug 704480 will be furnished separately for "Diesel quick start" requirements on 1st 315 engines. This adapter will be furnished with engines.

List of Parts Affected - Group "B"

Kit-Perkins Thermostart	B	-----	703371	NO	YES	New Part (Furn.)
Heater-Induction	F	703375	-----	YES	YES	Delete When Quick Start Used
Nut-Ind.Heater Fuel Pipe	F	704474	-----	YES	YES	Delete When Quick Start Used

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Group "B" (Cont'd.)

NAME	B OF M	OLD PART NUMBER	NEW PART NUMBER	I	A	REMARKS
Olive-Ind.Heater Fuel Pipe	F	704475	-----	YES	YES	Delete When Quick Start Used
Brkt.-Ind.Heater Fuel Cont.	F	703372	-----	YES	YES	Delete When Quick Start Used
Screw-Rear End.Cover 5/16-24 x 3/4	F	181595	-----	YES	YES	Delete When Quick Start Used
Washer-Plain 1/4 Std.	F	120393	-----	YES	YES	Delete When Quick Start Used
Container A.-Ind.Heater Fuel	F	703373	-----	YES	YES	Delete When Quick Start Used
Bolt - 1/4-28 x 5/8 Hex.Hd.	F	120854	-----	YES	YES	Delete When Quick Start Used
Lockwasher-1/4 Med.Spr.	F	120380	-----	YES	YES	Delete When Quick Start Used
Pipe-Ind.Heater to Fuel Cont.	F	704281	-----	YES	YES	Delete When Quick Start Used
Nut-Ind.Heater Fuel Pipe	F	704470	-----	YES	YES	Delete When Quick Start Used
Olive-Fuel Pipe	F	704469	-----	YES	YES	Delete When Quick Start Used
Pipe-Injector Leak Off	F	704471	-----	YES	YES	Delete When Quick Start Used
Nut-Inj.Leak Off Pipe	F	704470	-----	YES	YES	Delete When Quick Start Used
Nut-Fuel Cont.Overflow Pipe	F	704472	-----	YES	YES	Delete When Quick Start Used
Olive-Fuel Cont.Overflow Pipe	F	704473	-----	YES	YES	Delete When Quick Start Used

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All Perkins Diesel Engines will be factory equipped with the above listed (Group "B") parts. It will be necessary to remove these from the Diesel Engine Assembly when the "Diesel Quick Start" option is used.

Additional Parts Affected - Group "C"

NAME	B or M	OLD PART NUMBER	NEW PART NUMBER	I	A	REMARKS
Switch & Mtg.-S.G.Foot Cont.	M	645328	-----	YES	YES	Usage Revised
Switch A.-B/P Part.Foot	B	645320	-----	YES	YES	Usage Revised
Mounting-Safe Gd.Foot Cont.	B	644278	-----	YES	YES	Usage Revised
Screw - 1/4-20 x 3/8 Truss Hd.	B	137952	-----	YES	YES	Usage Revised
Nut & Ext.Tooth L.W.1/4-20	B	271172	-----	YES	YES	Usage Revised
Screw-#14-14 x 1/2 Pan Hd.Tapp.	B	9411537	-----	YES	YES	Usage Revised
Wire Assem.-Thermostart Foot Switch	B	645480	-----	YES	YES	Usage Revised
Tube A.-Fuel Cont.to Flex Hose	M	703150	-----	YES	YES	Usage Revised
Tube-Fuel Cont. to Flex Hose	M	704283	-----	YES	YES	Usage Revised
Olive-5/16 Tube Rubber	B	704467	-----	YES	YES	Usage Revised
Nut-Inv.Flare 5/16 O.D. Tube	B	137398	-----	YES	YES	Usage Revised
Tube-5/16 O.D. x .028 Wall x 26-5/8	M	704002	-----	YES	YES	Usage Revised

The above listed related parts will not be used when "Diesel Quick Start" is specified on P. O. with "Diesel Thermostart" option.