

PORSCHE-DIESEL



SERVICE

SERVICE BULLETIN #2

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Subject: Miscellaneous Technical Information for Dealer and Customer

Air Filter: To be cleaned and oil changed under dusty conditions at least once a week.

Clutch: The clutch pedal should be checked at least weekly for free play:

$\frac{1}{2}$ " on the foot plate

The adjusting screw is on the outside of the transmission housing close to the left foot plate. You will find a picture in the handbook "How I Service My PORSCHE-DIESEL", page 41, space 7.

Valve Adjustment: Turn engine (by hand with a screwdriver on flywheel) over until the T.D.C. mark - OT 1,2,3 and check the valve position. Both inlet and exhaust have to be closed. If both valves are open on OT position, turn the flywheel once (360 degrees). Valve Clearance is 0.08 inches on cold engine. Cylinder 1 is on all Porsche-Diesel models the nearest to the flywheel.

(See page 41, space 3 in the handbook.)

PORSCHE-DIESEL



SERVICE

	JUNIOR	STANDARD	SUPER	MASTER
Flywheel diameter	15.19"	15.66"	16.10"	16.10"
°FB before TDC	34	34	34	34
1° = inches on Flywheel	.1326"	.1366"	.1405"	.1405"
34° = inches on Flywheel	4.51"	4.643"	4.779"	4.779"
1° on Flywheel = inches on plunger	.0028"	.003"	.0028"	.0028"

Use this tabulation for FB adjustment in combination with templates.

PORSCHE-DIESEL



SERVICE

SERVICE BULLETIN #3

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Subject: Lubrication

We will furnish you shortly with complete lubrication charts for all PORSCHE-DIESEL tractors. In the meantime, this bulletin will inform you about what has to be done to lubricate PORSCHE-DIESEL tractors.

A. GENERAL

1. Check regularly, on level ground, the oil in the engine, transmission, reduction gears, steering, hydraulic lift, and belt pulley.
2. Be sure to change the oil at the specified times.
3. Do not allow tractor to cool off before changing the oil. Drain only warm oil.
4. Clean regularly the oil bath filter and the oil breather filter.
5. Always remember to grease specified points.
6. Filter the fuel (diesel fuel No. 2) before putting it in the tank.

B. ENGINE

1. Use only high quality HD (Heavy Duty) motor oil.
2. In case you have to add oil before the first oil change, use only a regular motor oil because the first filling was done by the factory with a high quality special break-in oil,

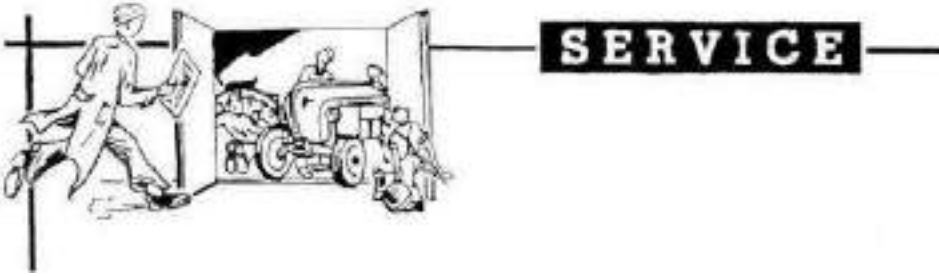
<u>A) Quantity:</u>	Model JUNIOR	4 $\frac{1}{2}$	Quarts
	Model STANDARD	6	quarts
	Model SUPER	11	quarts
	Model MASTER	15	quarts

B) Specified Change Times:

First	-	after 50 running hours
Second	-	after 100 running hours
Then	-	after 120-150 running hours

- Cont'd. -
-
-

PORSCHE-DIESEL



Remarks: Do not forget to clean oil strainer, main flow filter, and to replace, at every oil change, the paper filter cartridge of the auxiliary flow filter. (Check with your instruction book).

C. OIL BATH AIR CLEANER

1. Quantity: Fill to maximum mark (not over).
2. Specified change times: Once a month. In very dusty areas, change more often.
3. Oil grade: Same kind as motor oil.

D. TRANSMISSION

1. Quantity: JUNIOR $3\frac{1}{2}$ quarts
STANDARD 19 quarts
SUPER N 21 quarts
SUPER L $26\frac{1}{2}$ quarts
MASTER $46\frac{1}{2}$ quarts

2. Specified Change Times: First, after 50 running hours, then once a year.
3. Oil Grade: Regular transmission oil, S.A.E. 90 (not hypoid oil)

E. REDUCTION GEARS - right and left

1. Quantity: All models - 2 quarts for each reduction gear.
2. Specified Change Times: First, after 500 running hours, and then once a year.
3. Oil Grade: Same as, transmission oil.

F. HYDRAULIC LIFT

1. Quantity: Model JUNIOR 4 quarts
Model STANDARD 4.3 quarts
Model SUPER 7 quarts
Model MASTER 7 quarts
2. Specified Change Times First, after 50 running hours, then once a year.
3. Oil Grade: Motor oil S.A.E. 10 or hydraulic oil

Please inform your service department and also your newly established dealers about this service bulletin.

PORSCHE-DIESEL



SERVICE

SERVICE BULLETIN #4

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Subject: Mounting and adjusting the plow link point

A. MOUNTING

1. Pick the track to up so that it is centered to the plow hitch. Make sure ground is level and hard and that the chains are loose
2. Set hydraulic lift in floating position
3. Latch left lower link of three point latch first, then attach right lower link, using the leveling crank lever to bring the ball point in line with the cross shaft on the plow
4. Attach the top link to the plow

B. PREPARATION OF THE PLOW

1. Point of coulter $1\frac{1}{4}$ " before and 1" above the share.
2. Center coulter above or up to $9\frac{7}{8}$ " before the share point, at least $\frac{3}{8}$ " above the ground.
Raise: $\frac{3}{8}$ " on ground which has not been plowed

Height of the Upper Link Point H:

Tires 10 x 28)

and 11 x 28) 45 $\frac{3}{8}$ "

Tires 13 x 30)

and 9 x 36) $49\frac{1}{4}$ "

C. ADJUSTMENT OF PLOW

The plowing depth will be regulated only by the top link.

SHORTEN top link - Greater depth of plowing

LENGTHEN top link - Less depth of plowing.

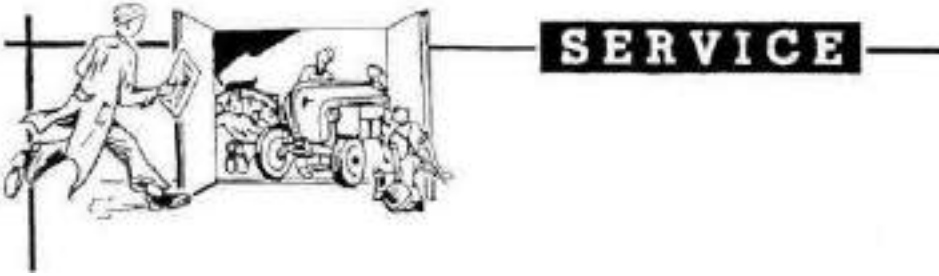
The position of the mouldboard gives good pressure on the ground.

The land which should be positioned only after the plow has been set and should roll easily.

ADJUSTING WIDTH OF FURROW: TURNING of the eccentric cross shaft of the plow points adjustment. The width of the furrow of the first mouldboard must be adjusted in accordance with the position of the second mouldboard.

To level the plow, shorten the right lifting link by turning the crank on the leveling spindle until the angle of the plow is 90* to the ground. UNDER WORK LOAD, chains MUST BE LOOSE, IN TRANSPORT CHANS MUST BE TIGHT.

PORSCHE-DIESEL



SERVICE BULLETIN #6

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Subject: Wheel Nuts and Bolts

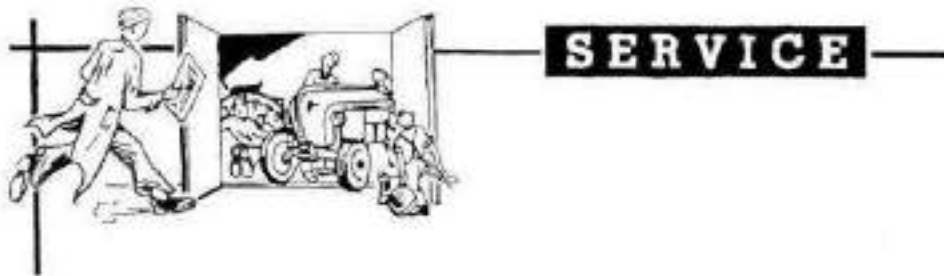
It is absolutely necessary to tighten up the wheel nuts and bolts on new tractors immediately after their arrival from transport.

Be sure that all wheel nuts and bolts are tight before you start a demonstration.

Also, inform your customers to take care of this point and check wheel nuts and bolts at least every 100 working hours.

You will save yourself and your customers time and money if you follow this advice.

PORSCHE-DIESEL



SERVICE BULLETIN #7

=====

Subject: Fuel Tap on our Tractors.

In the past few weeks we have received a number of request to equip cur engines with a fuel tap between the tank and the injection pump.

Fuel taps of this type on vibrating engines sooner or later become leaky, and the dripping fuel is spread over the whole engine by the blast from the blower.

For this reason Messrs. Allgaier left out the fuel tap on all the P-models.

Such a tap would in practice prove superfluous since it could only be used in the semi annual cleaning or other work on the fuel tank.

However, if the tank is removed it is sufficient to fix a passing screw or bolt in the adjoining tube between the filter pipe and the fuel line, in order to seal it.

We are sure that after considering these points you will agree with us.

PORSCHE-DIESEL



SERVICE

SERVICE BULLETIN #9

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Tightening Torques for all PORSCHE-DIESEL Models

Cylinder Head	40 - 45 ft. lbs
Conn. Rod Bearing	45 - 50 " "
Main Bearing	50 - 55 " "
Main Bearing Flange	32 - 36 " "
Counterweights (Crankshaft)	40 - 45 " "
Flywheel	65 - 70 " "
Drain Plug (Hydraulic Clutch)	120 -130 " "
Injection Nozzle Holder	40 - 45 " "

Compression (to be checked with gauge on glow plug hole cyl.head)

340 - 400 lbs. sq. in.:	Very good
310 - 340 lbs. sq. in.:	Regular
260 - 310 lbs. sq. in.:	Still Serviceable
Less than 260 lbs. sq. in:	Do not operate

Engine Oil Pressure

All Models

Minimum:	0.8	kg./cm ² = 11.4	lbs. sq. in.
Maximum:	5	kg/cm ² = 70	lbs. sq. in.

Injection Pressure (adjustable by ships in nozzle holder)

All Models

2100 lbs. sq. in.

cont'd.

PORSCHE-DIESEL



SERVICE

Hydraulic lift

	Interchangeable		Interchangeable		Interchangeable	
			STANDARD	SUPER		
Tractor Model	P 111	JUNIOR	P 122	P 133	P 144	MASTER
Lift Model	150 m/kg	250 m/kg	400 m/kg	700 m/kg	700 m/kg	800 m/kg
Lift Power (Torque)	1065 ft.lbs.	1775	2840 ft.lbs.	5000	5000 ft.lbs.	5680
Oil Pressure Lbs. sq. in	115	100	150	125	125	125

Speedometer (km graduation)

	1,609	km/hr	=	1 mph	
Approx.	16	km/hr	=	10 ml/hr.	
	30	km/hr	=	18 mph	(Approximate top speed P 133 and SUPER)

Miscellaneous Dimensions

1 inch.	=	25.4 mm
1 cubic inch	=	16.387 ccm

Cubic capacity of each cylinder on all PORSCHE- DIESEL models =

822 ccm = 50.15 cub. in.

PORSCHE-DIESEL



SERVICE

SERVICE BULLETIN #10

=====

Subject: Modification of oil Dipstick For model "STANDARD"

Thorough testing during the last year made it possible to reduce crankcase oil level in the P 133 and the P 122 models.

The tests were extended to cover the model "STANDARD" after completion of the test program, we can now advise you that now the "STANDARD" also requires a lower oil level and operates more economically. We, therefore, ask you to make the following modification on all "standard" tractors, prior to No. 218/2625 and G 218/346:

Fill in the maximum mark on the dipstick with solder and make a new mark (using a file or a hack saw) 10 mm= 7/16" below the former maximum mark. Next the same time, the upper cap of the dip stick has been improved for better prevention of oil leaks.

New dip sticks may be ordered in Friedrichshafen at nominal prices. Please see to it that the dip stick modification is carried out immediately on all tractors where it applies.

PORSCHE-DIESEL



SERVICE

SERVICE BUTTETIN #11

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RECOMMENDED DIESEL FEUL SPECIFICATIONS:

Gravity ° API		appr.	35
Flash ° F. PM			170
Pour Point °F.			-15
Cloud Point °F.			-10
Viscosity SSU @ 100 °F.			34,5
*Sulphur 5 wt.	not over		.5%
Cetane Number	not less than		44
IBP °F.	appr.		385
FBP °F.	"		635

AMERICAN DIESEL FUEL'S WITH SPEC'S CLOSE TO RECCOMENDED:

Standard oil (Esso)	260
Shell	
Texaco	445 and 456

RECOMMENDED MOTOR OIL'S:

Heavy duty - Series 1	Oil
	SAE 20 and 30
	SAE 10 below 15°F.

*If Diesel with higher sulfur content is used, Motor Oil H.D. Series 2 or 3 has to be used.

PORSCHE-DIESEL



SERVICE

SERVICE BULLETIN No.12

=====

Subject: Charge rates for New Dry tractor Batteries

General Instructions:

Fill battery with acid and let it stand for 3 hours. Refill to approximately ¼" above plates.

Charge battery at rate shown on tabulation below.
Temperature: not above 104° F

Charge is completed when specific gravity reaches 1,28 and voltage (2,6 - 2,7 V per Cell) is constant.

Type Battery		Ah	Charge Rate	
6 Volt	12 volt		AMP.	
3 N 4	6 HN 5	45	3	4
	6 N L	56	4	5
	6 N 4 CH	56	4	5
3 Lt 6		66	5	6
3 N 5	6 N 5	70	5	6
3 Lt 7		77	6	7
3 N 6	6 N 6	84	6	7
3 N 7		98	7	8
3 HE 9	6 HN 11	100	8	9
3 E 7	6 E 7	105	8	9
3 N 8		112	8	10
	6 E 8	120	9	10.5
3 E 9	6 E 9	135	10	12
3 E 12	6 E 12	180	13	16



F & S ZWEIFACHKUPPLUNGEN

»DO«

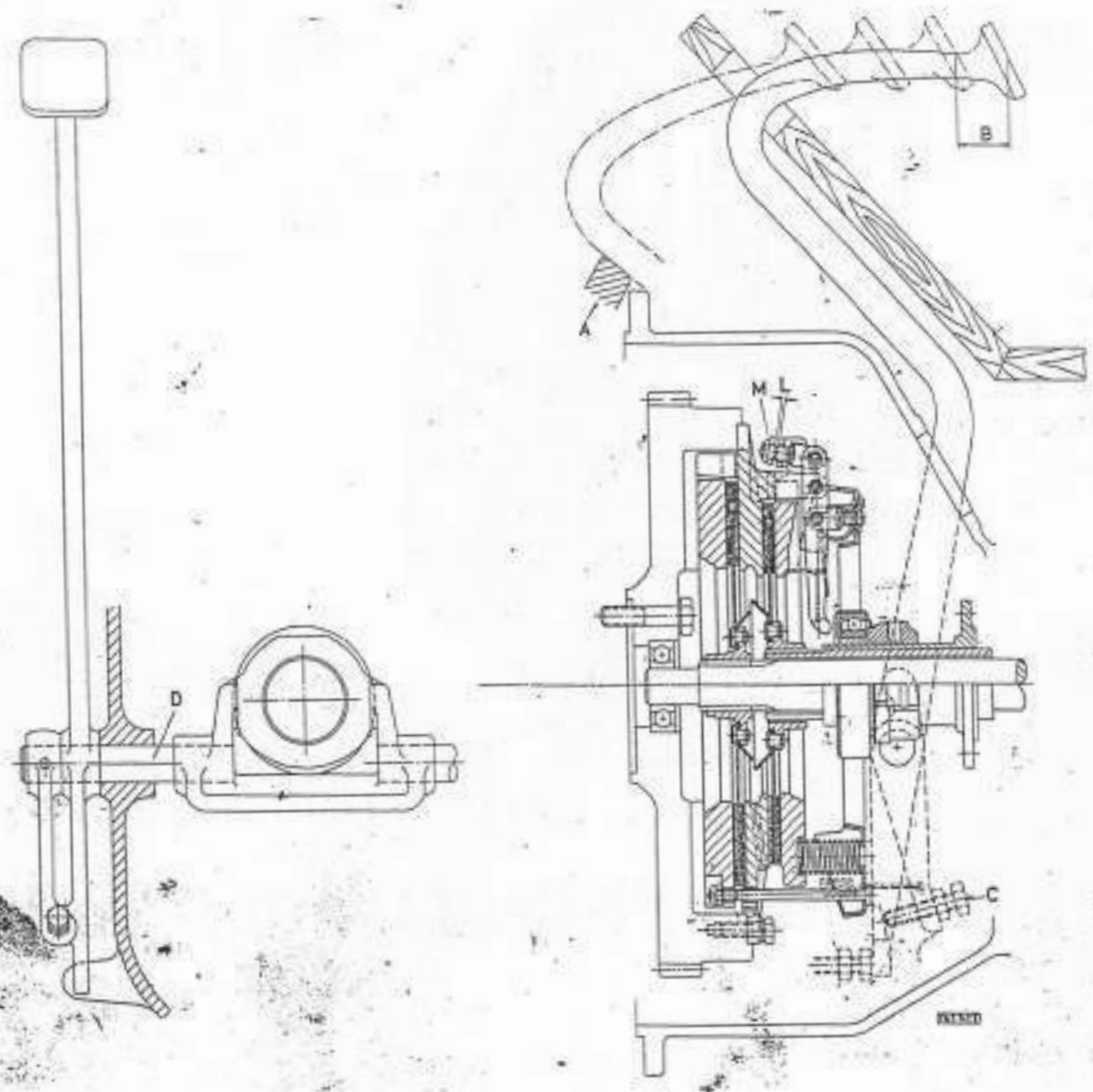
Einbau- und Einstellanweisung

Ausbau: Nach Lösen der 6 Befestigungsschrauben kann die Zweifachkupplung geschlossen aus dem Schwungrad herausgehoben werden.

Einbau: Vor dem Einbau ist zu prüfen, ob sich die Naben der Mitnehmerscheiben auf den Nutenwellen leicht verschieben lassen, andererseits aber auch nicht zuviel Luft haben. Die Nuten werden mit einer Mischung aus dickflüssigem Öl und Graphit geschmiert. Eine zu reichliche Schmierung, die zum Verschmutzen der Belagringe führen könnte, ist zu vermeiden.

Einstellung: Jede Kupplung wird vor dem Verlassen des Werkes in besonderen Einstellvorrichtungen auf Höhe und genauen Lauf eingestellt. Die Einstellmuttern werden anschließend gesichert, sie dürfen keinesfalls verstellt werden. Ist durch Belagabnutzung der Fahr- oder Zapfwellenkupplung eine Nachstellung nötig, so hat dies an den Muttern »Mx« der äußeren Hebelböckchen der Kupplung zu erfolgen. Gleichzeitig ist der am Kupplungspedal vorgeschriebene Totgang zu überprüfen. Zwischen den gekonterten Muttern »Mx« und den Druckplättchen muß ein Luftspalt »Lx« von 1,7 mm vorhanden sein, während das Kupplungspedal einen Totgang von mindestens 30 mm haben muß. Der Luftspalt »Lx« von 1,7 mm entspricht dem Ausrückweg der Fahrkupplung. Erst bei weiterem Durchtreten des Kupplungspedals wird nach Überwindung eines deutlich spürbaren Druckpunktes auch die Zapfwellenkupplung frei. Da – wie schon erwähnt – sich der Luftspalt und der Totgang des Kupplungspedals bei Belagabnutzung verändern, müssen von Zeit zu Zeit das Maß »Lx« mittels einer kleinen Fühllehre und der Totgang des Kupplungspedals nachgeprüft und gegebenenfalls wieder richtig eingestellt werden.





Zweifachkupplung: Do 22/16 K, Do 30/22 K, Do 38/30 K

A = Anschlag zur Begrenzung des Pedalweges B = Totgang mind. 30 mm C = Nachstellschraube D = Pedalwelle

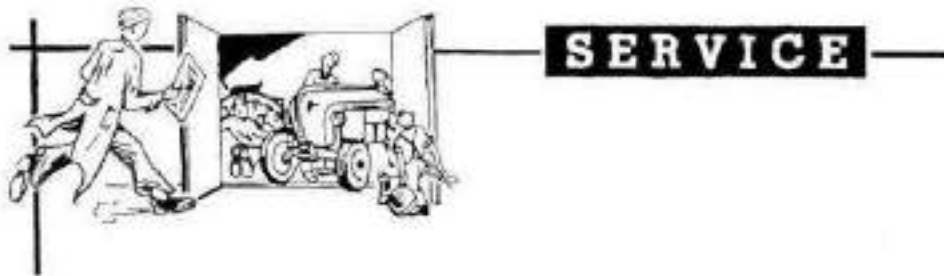
Begrenzung des Pedalweges: Der Ausrücker bzw. die Kupplungshebel dürfen beim Auskuppeln nicht tiefer in die Kupplung hineingedrückt werden als es der Gesamtausrückweg von 13 mm – bei allen drei Größen – erlaubt. Falls der zur Begrenzung vorgesehene Anschlag verändert wurde, ist die Begrenzung wieder so einzurichten, daß der vorgeschriebene Ausrückweg nicht überschritten wird. Zu weites Durchtreten kann die Kupplung beschädigen.

Behandlung: Außer einer regelmäßigen Schmierung des Kugellager-Ausrückers ist keine weitere Wartung der Kupplung erforderlich.
Kupplung nicht schleifen lassen!
= Beim Fahren den Fuß vom Kupplungspedal nehmen!

Bei Transport und Lagerung der Kupplung ist darauf zu achten, daß das Aggregat nur auf die Hebelseite (Stirnseite) aufgelegt wird. Wird die Kupplung mit der motorseitigen Platte aufgelegt, dann besteht durch die überstehende Nabe die Gefahr einer Deformierung der Scheibe der Fahrkupplung.

Ersatzteile: Einwandfreie Funktion der Kupplung ist nur bei Verwendung von SACHS-Original-Ersatzteilen gewährleistet. Bei Bestellung von Teilen bitten wir um Angabe der auf der Abschlußplatte ersichtlichen Typenbezeichnung der Kupplung, ebenso der Fahrzeugtype und -Marke, für die die Teile bestimmt sind.

PORSCHE-DIESEL



SERVICE BULLETIN No.13

=====

Instructions for Assembly and Adjustments on double Clutch on SUPER L and MASTER

Dismantling:

Loosen the 6 fixing screws. Remove the double- Clutch assembly from the fly wheel.

Assembling:

Check before assembling whether the hubs of the clutch plates on the grooved shaft slide easily. However, the hubs should not have too much play. The grooves must be greased with mixture of heavy oil and graphite.

Do not grease too much. Linings must stay clean

Adjustment:

Every clutch, before leaving the factory has been adjusted by means of special adjusting devices to height and true running. The adjustment nuts should not be loosened, unless adjustment is needed due to worn out linings. Adjusting of both the driving clutch and PTO clutch is done on the nuts "M" (3 on circumference) connecting the pressure fingers with the plate brackets. To check the specified clearance "L" of 1/16" use special feller gauge supplied with tractor. Clearance "L" of 1 1/16" corresponding to a play on the clutch pedal of 1¼.

Clearance "L" decreases with worn out linings. Consequently clutch pedal play will also decrease. It is recommended to check clearance "L" periodically, using the U-shaped feeler gauge. (This is feeler gauge is riveted to handle of the adjusting wrench.)

Maintenance:

Besides the weekly lubrication of the ball bearing- clutch release there is no other maintenance necessary.

DO not drag the clutch! Your Hydraulic Coupling provides smooth acceleration.

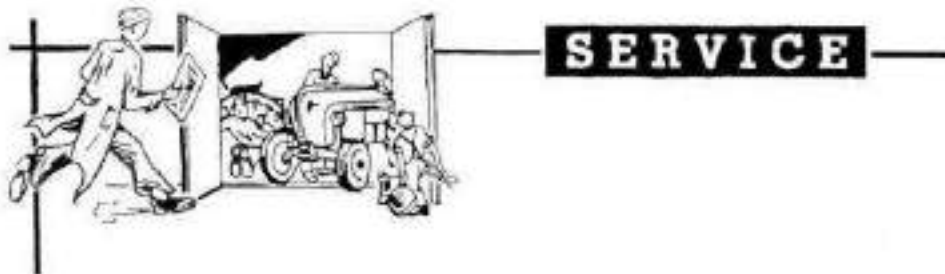
DO not use the clutch pedal as a foot rest!

For transport and storage the clutch should be laid on the lever side.

Parts:

If replacements become necessary, use only original SACHS parts. When ordering parts please quote clutch number (marked on the lower cover plate) as well as other tractor serial numbers.

PORSCHE-DIESEL



SERVICE BULLETIN No.14

=====

Subject: Crankcase - STANDARD

STANDARD" crankcase upper and lower sections are now machined in one process, whereby a safe seal with gasket No. 00 993 17 00 is provided. Upper and lower parts belonging together are marked with the same engraved numbers.

In order to avoid the mistake of using upper and lower parts that are not matched sets, we will no longer supply upper and lower parts for "STANDARD" separately, but only as follows:

Crankcase upper and lower part

With bearing retainer for type
"STANDARD"

Order No. 25 010 22 90

The following order Nos. will be eliminated from now on:

Crankcase Lower part

Order No: 25 101 10 01

Crank Case Lower part

Order No: 22 010 20 00

Crank Case Upper Part

Order No. 523 038

Crank Case Lower Part

Order No. 523 035

Please make the necessary corrections on page 7 of the new parts from the model "STANDARD"

PORSCHE-DIESIL DIVISION
Service Department

Frank Kaplan

PORSCHE-DIESEL



SERVICE

SERVICE BULLETIN No.15

=====

Subject: Improvement of Cylinder Head Mounting

AS we have told you the cylinder heads were to be tightened after 50 hours of operation with a torque wrench 35-40 ft. lbs.

To improve the cylinder head mounting we request to insert a spring washer, part #00.994 10.18 between nut and head.

This improvement has been started at the factory assembly beginning with serial # as listed below.

JUNIOR 108 N/G	25 885
STANDRAD 218 N	4 773
SUPER 308 N/L	12 948
MASTER 408 N	406

When adding the spring washer please make sure that nut; washer and head are thoroughly dry and clean prior to assembly.

Also, check nuts for micro finish and do not use nuts with scratches on pressure surface.

Engines with serial # later listed above do not require retightening of cylinder head nuts.

PORSCHE-DIESEL DIVISION

Frank Kaplan

PORSCHE-DIESEL



SERVICE

SERVICE BULLETIN No.17

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Subject: Valve Clearance on JUNIOR, STANDARD, SUPER and MASTER

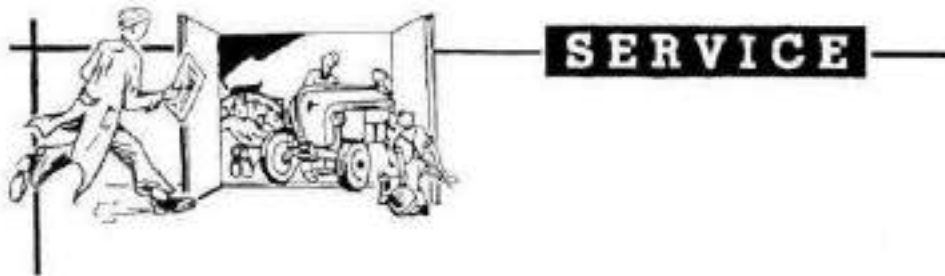
We would like to stress again that the valve clearance for both inlet and exhaust valve is .008" with engine cold, 0.27" with engine hot, only if impossible to adjust with cold engine.

Improper valve clearance will cause damage to valves and valve seats, resulting in loss of engine output.

PORSCHE-DIESEL DIVISION

Frank Kaplan

PORSCHE-DIESEL



SERVICE BULLETIN No.18

=====

Subject: Hydraulic Lift Arresting Bars

Experience with remote rams has shown that the two lift arms must be blocked with an arresting bar for each one to avoid distortion of the lift shaft.

The second arresting bar 03 455 21 00 was added effective immediately and must be furnished for all tractors delivered and in stock which may ever use remote rams.

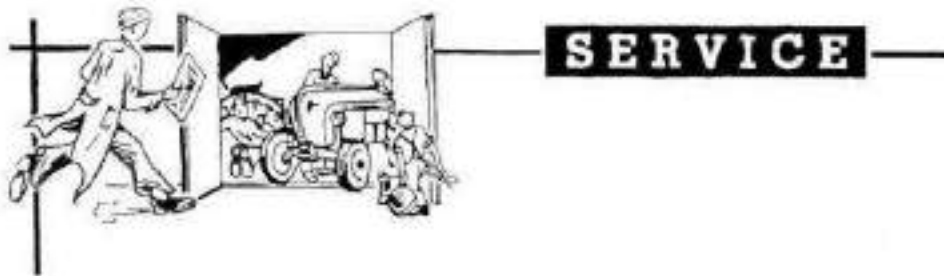
While fitting the second arresting bar check power lift pressure with pressure gauge (with fixed lifting arms). Pressure should not exceed 1700 psi.

Please check with your dealers and order proper number of arresting bars which we will furnish upon request.

PORSCHE-DESIEL DIVISION

Frank Kaplan

PORSCHE-DIESEL



SERVICE BULLETIN No.19

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Subject: Serial Numbers

From time to time the factory makes minor modifications and adjustments to improve the quality of PORSCHE-DIESEL tractors. Some of these modifications are made during the run of a long production series and the factory simply notifies us that from serial number so and so on a certain change has taken place.

We want to relay this information to you only if it applies to tractors in your territory rather than snowing you under with host of meaningless memos.

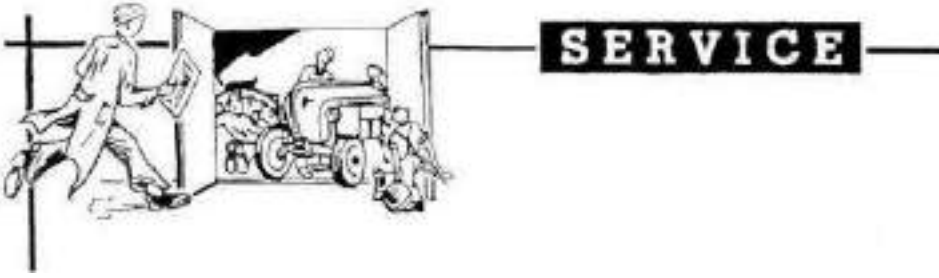
Please check your factory invoices for tractor serial numbers and send us a list of the numbers in your territory.

Thank you for your cooperation.

PORSCHE-DIESEL DIVISION

Frank Kaplan

PORSCHE-DIESEL



SERVICE BULLETIN No.20

=====

Subject: Warranty reports

In order to reach a more simplified warranty settlement we have printed new warranty reports. Generally these new forms are similar to our old ones (one pad contain 25 sets with 4 copies each). But they are printed in four languages: German, English, French and Spanish. Within the next two weeks you will receive one pad of these new forms.

Every pad of warranty reports is accompanied by 5 sets of the supplements for the Zahnradfabrik Passau (ZF) consisting of white, pink and yellow copy. In case of warranty claim concerning the ORIGINAL-ZF-TRANSMISSION (Installed on our models JUNIOR AND MASTER only) the supplement has to be filled in and the white pink copy sent in to our Service Department together with the corresponding forms of the warranty report.

This is how to file a warranty claim:

1. Identify broken or damaged parts by order number and description.
2. Detect cause of damage.
3. Read instructions on reverse side of warranty forms.
4. Fill out warranty form completely except for price column
5. Have tractor owner sign forms, also sign them yourself.
6. Send the green and the white copy to your distributor. He will forward the white copy to us and keep the green one for his own record.
7. Broken or damaged parts have to be sent to your distributor according to the instructions on reverse of warranty form.

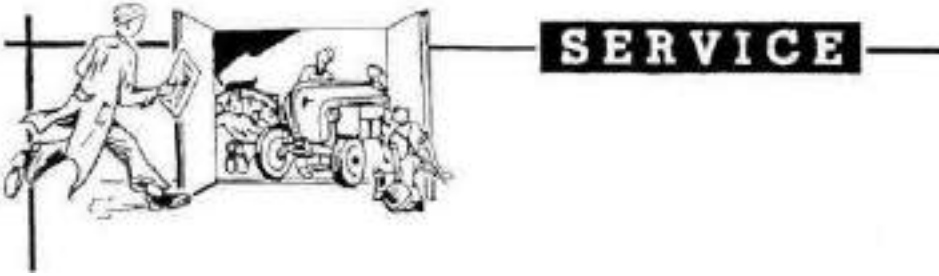
The indicated damages will immediately be examined and a credit note will be given within the shortest possible time which covers the accepted claims.

At the same time we want to remind you of our complaint reports. Independently from the warranty reports we should be informed about any occurred damage by all means of the complaint reports, if possible together with a simple drawing or photo.

Since warranty claims for ZF parts have to be filed through us we ask you kindly to send all claims for such parts directly to our Service Department in Easton, Pa. In this case the warranty report must be accompanied by the pink and white copy of the supplement for the ZF. A credit note, however, can only be given when we have received the decision of the Zahnradfabrik Passau.

Please destroy your old warranty forms as soon as you receive new ones.

PORSCHE-DIESEL



SERVICE BULLETIN No.21

=====

Subject: Battery Installation on SUPER N/L and MASTER

Since we have received various check-backs concerning battery installation in connection with the corresponding battery services and maintenance, we think it is necessary to provide some instructions as to battery installation.

1. To remove battery covers take off wing nut, washer and hold down bracket.
2. Loosen nut of positive battery terminal (starter cable) and remove cable connection. The battery support plate can now be pulled out and the batteries checked.

On SUPER L the battery support can be pulled out after the hold down bracket has been removed without loosening the cable connection.

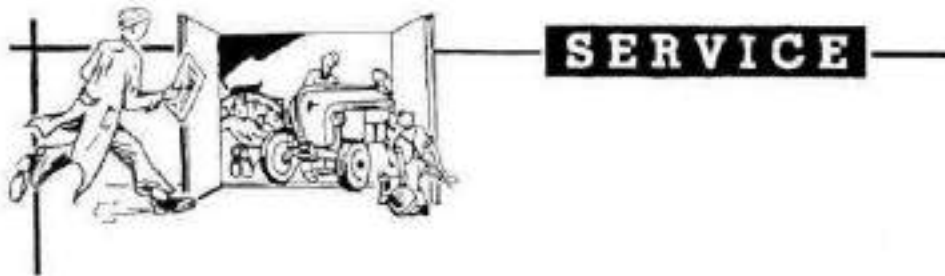
Assembly is the reverse of disassembly.

Make sure the battery terminals and cable connections are absolutely free from corrosion and in good condition. They should be treated with a special non-acid grease for battery terminals. Faulty batteries and cable connections will reduce the efficiency of the electrical system and may easily cause starting difficulties

AMERICAN PORSCHE-DIESEL CORP.

Frank Kaplan

PORSCHE-DIESEL



SERVICE BULLETIN No.22

=====

Subject: Engines with Load-Depending Injection Timing

Starting with the serial numbers stated on page 4 our tractors show an improvement by automatically assimilating the beginning of fuel delivery to the constantly changing load levels as they occur in practice.

This development has required the installation of some new parts. Parts of the former design as listed in this bulletin cannot be used in the engines in question. Therefore it is necessary that you immediately stock up on the new parts in order to be able to meet repair requirements and to guarantee smooth maintenance and service of the new engine type any cause.

Technical data and modified parts

A. STANDARD

1. Fundamental adjustment of beginning of fuel delivery:

At 13.9 mm (0.547 inch) travel of the governor rod beginning of fuel delivery is to be set to 34° before T.D.C. Full fuel injection for operation within the full-load range is maintained at 12 mm (0.473) control movement.

2. To start the engine travel of the governor rod must at least be 19 mm (0.749 inch)

3. Contrary to former instructions injection nozzles of the new type should be tested by short and fast strokes (aprox. 3-4 downward movements/second). Only then the newly introduced throttle-nozzle with pre injection will develop a full spray pattern.

4. Changed parts:

a) camshaft

New: 25 021 01 00

Old: 05 021 01 02

Due to modification of the crankcase bore the new camshaft cannot be used in engines of the earlier type.

PORSCHE-DIESEL



SERVICE

-2-

b) Fuel injection pump
new: PF 1 A 60 BS 419/2
old: PF 1 A 60 BS 85/2

c) Pump tappets:
roller tappets
new: 25 020 21 00 cylinder I
old: 25 020 21 20 cylinder II

flat tappets
old: 05 020 21 00

d) Pump shaft
new: 25 026 16 20 cylinder I
25 026 16 20 cylinder II
old: 05 026 16 00
05 026 16 01

(cylinder I is always the cylinder
closest to the fly wheel)

e) Nozzle:
new: DIN 30 SD 158 Bosch
00 035 01 06
old: DIN 30 S 2 Bosch

f) Injection line
6x2 instead of 6 x 1.5
(0.236x0.079 inst. of 0.236x0.059)

new: 25 060 60 00 cylinder I
old: 05 060 60 00

new: 25 06061 00 cyl. II
old: 05 060 61 00

g) Timing
new: governor rod 25 026 73 01
old: governor rod 25 026 73 00

new: shaft for governor
05 026 19 00
old: Shaft governor
05 026 19 05

new: forked lever 25 026 21 00
old: forked lever 05 026 21 02

Cont'd

PORSCHE-DIESEL



SERVICE

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- h) piston
new: 1mm (0.394 inch) offset
Attention to arrow, it must point into direction of motion
- i) glow plug with copper ring
new: rod-type glow plug 371 MK
00 315 82 07
Minimum length of pin 35.5 mm (1.399 inch).
old: glow plug 318 Gen 00 315 82 01
- k) Glow control
new: KOSK 20/50 00 315 70 14
old: KOSK 00 315 70 03
new: series resistance WT 35/50
 00 315 71 18
old: glow resistance WU 69/38
 00 315 71 08

B. JUNIOR, SUPER, MASTER

1. Fundamental adjustment of beginning of fuel delivery:

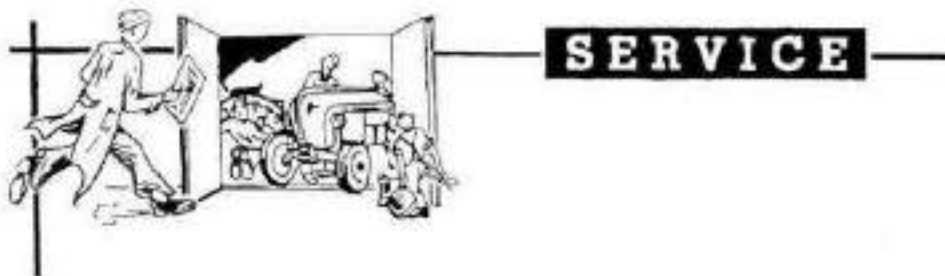
At 13.2 mm (0.520 inch) travel of the governor rod beginning of fuel delivery is to be set to 34° before T.D.C Full fuel injection for operation within the full-load range in maintained at 12mm (0.473 inch) control movement.

2. To start the engine travel of the governor rod must at least be 19mm (0.749 inch).

3. Contrary to former instructions injection nozzle of the new type should be tested by short and fast strokes (approx. 3-4 downward movements-second). Only then the newly introduced throttle-nozzle with pre-injection will develop a full spray pattern.

cont'd

PORSCHE-DIESEL



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4. Changed parts

a) camshaft
 new: 01 021 01 05 for 108 (Junior)
 old: 01 021 01 03 for 108 (Junior)

new: 03 021 01 06 for N/L 308 (SUPER)
 old: 03 021 01 05 for N/L 308 (SUPER)

new: 04 021 01 06 for N 408 (Master)
 old: 04 021 01 05 for N 408 (Master)

Installation of the new camshaft in old engines is admissible; old camshafts, however, cannot be used in new engines.

b) fuel injection pumps
 new: PF 1 A 60 BS 419/2 for 108,308 and 408
 PF 2 A 60 BS 420/2 for 308, 408
 old: PF 1 A 60 BS 85/2
 PF 2 A 60 BS 108/2

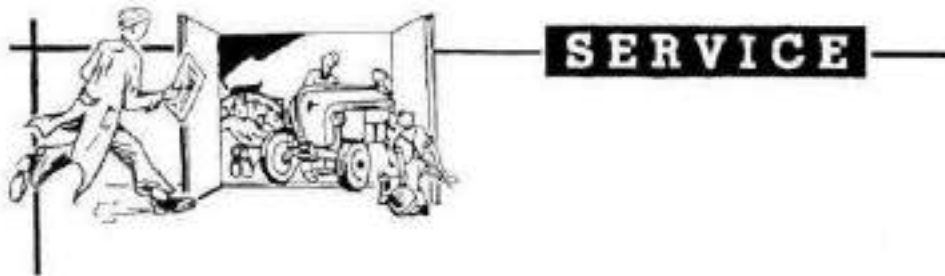
c) Injection line
 6x2 instead of 6x1.5
 (0,236x0.079 inst. of 0.23x0.059)

nozzle)
 glow plug) same as STANDARD
 glow control)
 piston)

Introduced into series production from the following tractor numbers on:

<u>Type:</u>	<u>Serial No. Tractor:</u>
JUNIOR KH	cont. from 1260
JUNIOR LH	827-834, 836-849, cont. from 851
JUNIOR S	cont. from 16 260
Standard H	4331, 4529, cont from 4556

PORSCHE-DIESEL



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SUPER N	cont. from 13 171
SUPER L	12 931, 13 056 cont. from 13 070
MASTER	387-389, 391, cont. from 398

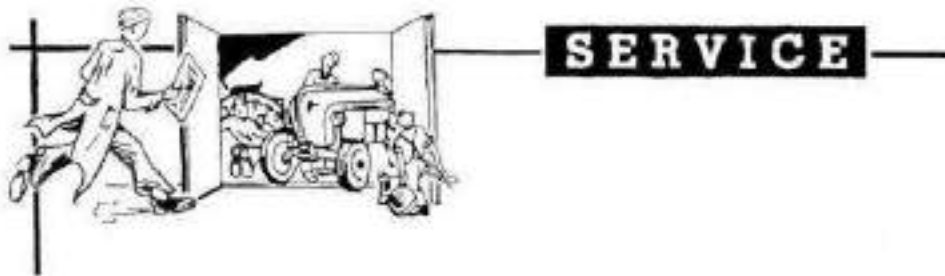
The introduction of engines with load-depending timing of fuel injection represents at the same time a substantial improvement of running characteristics at the same time a substantial improvement of the running characteristics which is mainly due to a smoother initiation of the power event and the assimilation of injection timing to the load.

In view of the importance of this change in engine design it is undoubtedly necessary that your technical personnel receives proper training. Therefore, we think it necessary that you send your mechanics and repair shop managers to our service training courses.

AMERICAN PORSCHE-DIESEL CORP.

Frank Kaplan
Service Department

PORSCHE-DIESEL



SERVICE BULLETIN No.23

=====

Subject: Electrical Wiring of Engines with Load-Depending Fuel Injection.

Various reports about failures of the glow plug MK 371 caused us to change the wiring system of the electrical starting equipment on tractors and engines stated below. This change reduces the current intensity which is delivered to the glow plugs during the starting procedure as - contrary to the former system - the glow wire of the glow control remains now within the circuit, at the same time, the glow control wire (In the dashboard) has to be placed by a new type of wire: BERU F2555 installation instructions page 3. Kindly check all tractors in your area and your own stock by the serial numbers listed on page 1 and let us know the required quantity of glow wires at once. To speed up the operation you may send your order directly to our service department or parts department in Easton, Pa. It would simplify the matter for us if you would refer in your order to this Service Bulletin.

From the attached wiring diagram you will see the former and the wiring system. We ask you to change the corresponding connections on the glow control according to the new wiring diagram on the following tractors:

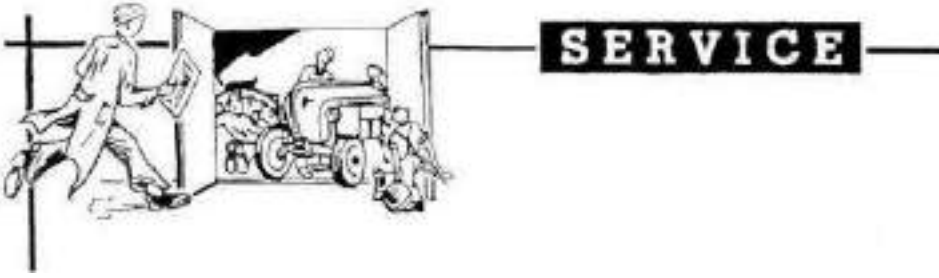
JUINOR KH	starting with 1260 continually
JUNIOR LH	827-834, 836-849
	Starting with 851 continually
JUNIOR S	starting with 16 260 continually
STANDARD H	4331, 4529
	Starting with 4556 continually
SUPER N	starting with 13 171 continually
SUPER L	12 931, 13 056
MASTER	387-389, 391, 392
	Starting with 398 continually

In connection with the glow plug MK 371 a copper ring order # 00 991 68.08 is installed. In case of replacements make sure copper ring is on the glow plug.

AMERICAN PORSCHE-DIESEL CORP

FRANK KAPLAN
Service Department

PORSCHE-DIESEL



#23A

SUPPLEMENT TO OUR SERVICE BULLETIN #23

In addition to our service circular mentioned above we went to provide some exact installing instructions for the medication of the electrical wiring system at the glow control.

When removing the glow control you will find three wires:

one yellow-black wire (19)
two black wires (17)

In order to eliminate uncertainties as to which wire is to be connected as single wire and which together with the yellow-black wire, we recommend to proceed as follows:

Set starter switch to pre-Glowing position.

Try which one of the black wires develops sparks when brought into contact with yellow -black wire (19). This wire (17) is to be connected to the glow control as single wire, the other one together with yellow-black wire.

You may also determine the wires by means of a test lamp.

Connect one of the terminals of the lamp to the positive battery terminal, the other one to one of the black wires. The wire which causes the test lamp to light up is to be connected as single wire.

Attention:

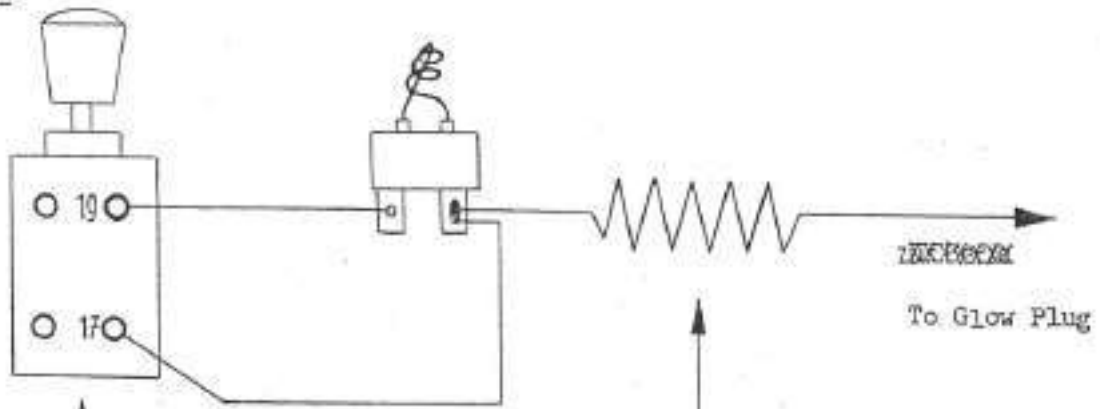
Be careful that the wires are not mixed up, since, in this case the glow control will remain out of the circuit and the glow plug will be overstressed.

AMERICAN PORSCHE-DIESEL CORP.

Frank Kaplan

Alte Version

Former type
Ancien type
Tipo viejo



Schalter

Glühüber-
wacher

Widerstand

Switch
Interrupteur
Interruptor

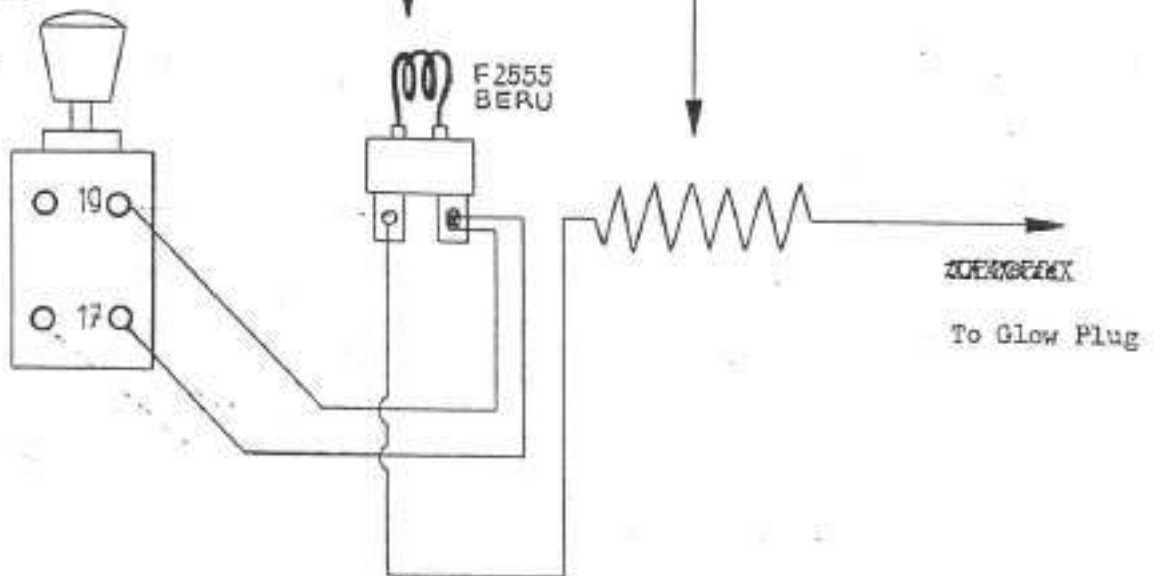
Glow control
Témoins de résistance
Control de precalentamiento

Resistance
Résistance
Resistencia

To Glow Plug

Neue Version

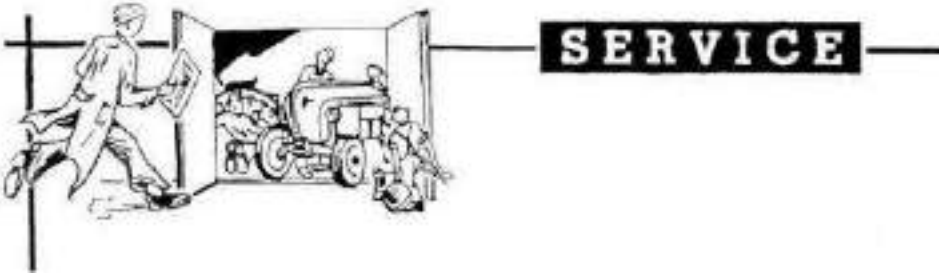
New type
Nouveau type
Tipo nuevo



F 2555
BERU

To Glow Plug

PORSCHE-DIESEL



SERVICE BULLETIN No.24

=====

Subject: Pre-Glowing of Tractors and Engines with Load-Depending Fuel Injection

In case of low outside temperature all tractors or engines with the modified wiring system (service Bulletin No. 23) must be pre-glowed for 30 to 50 sec. before they can be started. (5 to 10 seconds on engines the previous wiring system.)

We noticed that very often the engines are started after only 5 to 10 seconds of pre-glowing and that their owners are not at all informed about the possibility of priming the injectors.

The glow control wire in the dashboard on tractors and engines with the modified wiring system will be red-hot after only a few seconds pre-glowing but the glow-plugs but the glow plugs will not yet deliver the required heat.

EW ask you to inform your customers that in extreme low temperatures the injection system of our engines must be pre-pumped 20 to 30 times before they are started.

AMERICAN PORSCHE-DIESIEL CORP.

Frank Kaplan

Service Department

PORSCHE-DIESEL



SERVICE

SERVICE BULLETIN No.25

=====

Subject: Transmission ZF A 4, ZF A 20/18 installed in Tractors JUNIOR and MASTER

The manufactures of the above mentioned transmissions, Zahnrad-fabrik Passau, have informed us to pass on the following instruction to dealers and customers:

- a) New tractors, especially those used during the cold season should be operated in lower gears until the transmission oil reaches its operating temperature. Shifting from lower into higher gears should only be done when this temperature has been reached, which is indicated when shifting can be done without effort.

- b) Tractors equipped with double clutch (SUPER and MASTER) should be operated for the first hour after a cold start with the stop lever of the double clutch in forward position only. This allows the clutch pedal to travel to the full extent of both transmission and pto. Clutch. Using the full travel for shifting gears will permit smoother shifting and trouble free operation of pto. Clutch. This procedure is recommended all through the cold season.

March 1960

AMERICAN PORSCHE-DIESEL CORP

Frank Kaplan

Service Department

PORSCHE-DIESEL



SERVICE

SERVICE BULLETIN No.26

=====

Subject: Lubrication of Fan wheel on our Tractors SUPER/MASTER,
P 122 and P133

We have noticed that some of our customers have not been informed of the necessity of greasing the fan wheel on the tractor models specified above. The fan wheel is supposed to turn freely in both directions within the limits of the spring. This movement can be checked by reaching into the fan housing and turning the fan wheel by hand. It is advisable to stop the engine prior to making the check.

Not greasing the fan wheel at all or not sufficiently would cause the bushing to freeze and consequently bearing and shaft would be damaged. To provide trouble free operation of the tractors and to remind the operator at all times of the necessity of greasing the fan wheel periodically we had made decals to place on the left hand side of the fan housing with the arrow pointing to the grease filtering in question.

Enclosed please find an adequate number of decals which we kindly ask you to put on tractors of the above mentioned models you have sold or in stock.

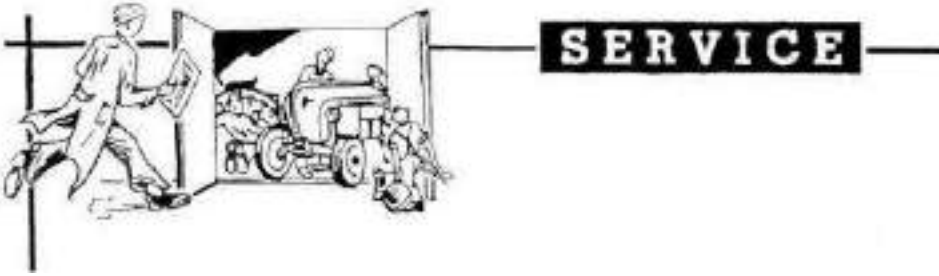
March 1960

AMERICAN PORSCHE-DIESEL CORP.

Frank Kaplan

Service Department

PORSCHE-DIESEL



SERVICE BULLETIN No.27

=====

Subject: Warranty Claims

Recent experience has shown that, in spite of precise instructions printed on the reverse of our Warranty Forms, plus the instructions given in our Service Bulletin number. 20, 90 percent of the warranty claims received by us have been filed improperly by our dealers and distributors.

To avoid any unnecessary delay in the execution of warranty claims, we have been helpful and cooperative. For the same reason, we have tolerated improper claiming to a certain extent. However, in the future we will accept warranty claims only when filed according to both instructions mentioned above.

Attached you will find a sample warranty form filed out in the proper manner.

Warranty forms will be accepted in typewriting and hand printing only. Forms filled out in handwriting will be returned to the applicants without acceptance of the claims.

At the same time we have to remind you that no warranty claim can be considered by the American Porsche-Diesel Corp. unless the delivery receipt, plus the first copy of the voucher (the first free inspection on delivery of tractor,) both properly filled out, and signed by the customer, have been sent to American Porsche-Diesel Corporation, or to the authorized distributor immediately after delivery of the tractor.

A sample of these documents properly filled out, is also attached to this bulletin.

The voucher of the second and third free inspection should be properly mailed in the same manner. The second copy of these vouchers marked, "To be kept by the dealer," should be filed by the dealer for his own record.

Again we ask your full cooperation.

March 1960

AMERICAN PORSCHE-DIESEL CORP.

Frank Kaplan

Service Department

SUPPLEMENT TO SERVICE BULLETIN NO. 27

PORSCHE-DIESEL

GARANTIEBERICHT WARRANTY REPORT RAPPORT de GARANTIE INFORME de GARANTIA
 Gemäß umstehenden Bedingungen einzusenden an: According to the overleaf specifications to be sent to: Selon les conditions au verso adresser à: Según las instrucciones en el reverso enviar a:

AMERICAN PORSCHE DIESEL CORP.

N^o 44951

Importeur/Versandstelle - Importing or selling agency - Importador/Agencia - Casa import. o vendedora

EASTON, PENNA.

Ort/Strasse - Domicilio/Oficina - Domicilio/Oficio - Domicilio/Calle

AUG. 16, 1960

Datum / Date / Date / Fecha

Anschrift des Kunden:
Address of Owner:
Adresse du Propriétaire:
Dirección del Proprietario:

**WILLIAM BROWN, SILVERSPRING FARM
R.D. 2, EASTVILLE, NEW YORK**

Typ Type Type Tipo	Fahrgestell-Nr. Chassis No. No du Tracteur No. del Tractor	Übergabedatum Date of Delivery Date de Livraison Fecha de Entrega	Baujahr Year of Constr. Année de Constr. Año de Constr.	Betriebsstunden Working Hours Heures de Service Horas de Servicio	Schadenseintr. am: Damage occurred on: Endommagé le: Daño ocurrido el:	mit welchem Apparat with which implement avec quel agrégat con qué implemento
308 L	12356	4/20/60	1959	115	8/5/60	PLOW

Beanstandete Teile - Damaged Parts - Pieces endommagées - Piezas dañadas

Benennung Description Désignation Descripción	Teile-Nr. Part No. No de la Pieza No. de la Pieza	Anzahl Quantity Quantité Cantidad	Grund der Beanstandung Cause of Complaint Cause de la Réclamation Causa de la Reclamación	Preis Price Prix Precio
BRAKE DRUM	03.26101.01	1	CRACKED	

Datum: AUG. 16, 1960 Unterschrift des Kunden - Signature of Owner <i>William Brown</i> KEN'S IMPLEMENT & TRACTOR CO. Unterschrift des Händlers - Stamp and Signature of Dealer <i>Ken Miller</i> Easton, Pennsylvania BASTVILLE, NEW YORK	Summe - Sum Montant - Suma	
	Rabatt - Discount Rabais - Descuento	
	Endbetrag - Total Montant Total - Total	
	Anerk. Betrag - Accepted Amount Montant accordé - Suma aceptada	

Entscheidung des Werks - Decision of the Factory:
 Décision des Ets. Porsche-Diesel - Decisión de la fábrica:

*Bei Industriemaschinen stets Maschinennummer angeben - In case of industrial engines always quote engine No.
 Pour moteurs industriels indiquer No du moteur - En el caso de motores accionamientos indicar el No. del motor.

VOUCHER

Get first free inspection on delivery of tractor.
When handing over this voucher, the serial and model nos. are to be done free of charge on delivery of tractor.
The inspection was done today

Super
Master
Tractor No 308L/12356
Date of registration
Date 4/20/60

KEN'S IMPLEMENT & TRACTOR CO.
EASTVILLE, NEW YORK

William Brown
Sales Agent

Dealer's name

Please send immediately to
Main Distributor

DELIVERY RECEIPT

I/We hereby take over of the Super master
tractor manufactured by JCB Ltd, Purvies Diesel
Motors Co Ltd, Friedrichshafen and Engower
308L
Tractor No: 12356

Super
Master

In absolutely new condition with full service
instruction book and lubrication chart.

The tractor No _____ is
It registered as _____
under No _____

Address of Sub-agent: (FILL OUT ONLY IF
TRACTOR HAS BEEN SOLD THROUGH
SUB-DEALER OR AGENT)

WILLIAM BROWN
Name of Buyer
R.D. 2, EASTVILLE, N.Y.Address

Size of farm: 200 ACRES
Roadway storage: 20 mason storage 80
Cane storage: 60 wood storage 40
Service Station: KEN'S IMPLEMENT &
TRACTOR CO.
EASTVILLE, N.Y.

I/We acknowledge receipt of the Service Check Book.
The first inspection was done free of charge by the dealer on delivery of tractor.

Without this receipt no guarantee claim can be considered by the
manufacturers.

Date 4/20/60

Ken Miller
Sales Agent
KEN'S IMPLEMENT & TRACTOR CO.
EASTVILLE, NEW YORK

William Brown

BACK OF DELIVERY RECEIPT

(OVER)