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Remember, +. â € â € M ^ Related resources: topics, directories, suppliers, products, media, +. Visit the starting of EAB leading articles to obtain a preview of the vast reach of our website. "The 20 most popular articles of this month on our EAB website. The design of the entire website of EveryTHingaboutBoats.org: the website pages: types of pages, content, topics, +. â € â € ^m What our non -profit academy Aweight Academy and their Eab website have achieved. The members of â € 'must start session to obtain access to the uniquely website of this website of this website . (Replace "Detroit diesel 8.21" Fuel Pincher "Marine engine, as the venerable 6-71 since General Motors believed the division in 1938. 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Half of them were replaced by the complete engine $\hat{a} \in Of$ the approximately 200,000 engines sold, almost all failed while still low guarantee, many catastrily. Half of the inherent deficiencies of 8.2 discussed in detail later in this article. By adapting to this unfortunate situation, some repaired and they were very failed again. The few 8.2s that still work today, especially in the marétimo service, exemplify the beneficial effects that caution operation and careful maintenance in these engines may have. See the two sections later in this article entitled 8.2 Cuting and how to keep 8.2 alive. Detroit Diesel and then GM, as well as the majority of market sources, almost all parts and service support for 8.2 have interrupted including all hard parts (engineering blocks, cylinder heads, dishes, connection rods, pans of oil, rock covers, etc.). The formation of services, special tools and repair manuals have also been interrupted, which makes 8.2 owners maintain their hu © rfanos engines. See our Detroit Diesel No The 8.2L "FUEL PINCHER". Please do not try to contact any of the providers on this website through our AllAboutBoats.org Telephone, Email or Feedback Systems. Your message will NOT be sent to the seller. Contact suppliers directly.taht stekcaj retaw eht dna srednilyc eht ni srebmahc noitsubmoc eht fo erom ro eno neewteb liaf netfo tsom steksag daeh 2.8 ehT .cihportsatac eb nac stluser eht dna ,decneirepxe gnimoctrohs 2.8 nommoc tsom eht si sihT seruliaF teksaG daeH 2.8 leseiD tiorteD .AA ã¢Evila 2.8 eht peek ot woh woh wohœâ€ã¢ No snoitseggus yb dewollof wolebel deliated era eraht .Seruliaf gnirab dna tfahsknarc tneuqerf s†,snotsip fo raew dipar ni tluser taht striks notsip trohS ;seruliaF teksag daeh tneuqerf ni stluser taht gnixelf rednilyc evissecxe swolla taht daeh rep stlob daeh 01 ylno dna srednilyc gnidnats-eerf htiw kcolb rednilyc gnidnats-eerf htiw kcolb rednilyc evissecxe swolla taht daeh rep stlob daeh 01 ylno dna srednilyc gnidnats-eerf htiw kcolb rednilyc evissecxe swolla taht daeh rep stlob daeh 01 ylno dna srednilyc gnidnats-eerf htiw kcolb rednilyc gnidnats-eerf htiw kcolb rednilyc evissecxe swolla taht daeh rep stlob daeh 01 ylno dna srednilyc evissecxe swolla taht daeh rep stlob daeh 01 ylno dna srednilyc gnidnats-eerf htiw kcolb rednilyc gnidnats-eerf htiw kcolb rednilyc gnidnats-eerf htiw kcolb rednilyc gnidnats-eerf htiw kcolb rednilyc evissecxe swolla taht daeh rep st etar eruliaf hgih yliranidroartxe eht fo evitacidni si ,0991 ni seraps 000,05 revo ta gnikaep , Raey Hcae Decudorp Seraps Dnasuoht lareves eht .1###sâ ã,â€â€â4â1#Pdâ â,â •€Sâ€â€â4ê3+8000¢05 gnidulcni($791\hat{A}\hat{A}$ ¢96 318032 0991)seraps +000 $\hat{A}\hat{A}$ ¢5 gnidulcni(652 \hat{A} ša \in â \in af 175412 9891) Serapa +000 \hat{a} \in â \in â \in af a calculcni(472 \hat{a} \in â \in â \in af a calculcni(472 \hat{a} \in â \in af a calculcni(472 \hat{a} \in â \in af a calculcni(472 \hat{a} \in âf a calculcni(472{\hat{a} \in âf a calculcni(472{\hat{a} \in âf a calculcni(472{\hat{a} \in âf a calculcni(472{\hat{a})}) cylinder during the intake stroke, then the cooling system during the compression stroke, and finally the combustion gases to enter the cooling system during the compression stroke. Additional engine coolant may enter the cooling system during the compression stroke and exhaust stroke. ¢ÃÂÂHydrolocking¢Ã (which can occur when enough non-compressible liquid such as engine coolant has entered the cylinder to stop the piston before top-dead-center) are discussed later in this article. Detroit Diesel 8.2L Head Gasket (Each head has only 10 head bolts). When the Detroit Diesel 8.2L is compared with other diesel engines, the reasons for the 8.2L head gasket failures become obvious. Typical diesel engine blocks have cast and machined ¢ÃÂÂdecks¢Ã that support the top of the cylinders and evenly squash the heads. In addition, most diesel engines have at least 6 head bolts (some shared with neighboring cylinders) in a full circle pattern around the top of the cylinder to more evenly provide the necessary head tightness on the head gasket. Both of these features can be seen in the Caterpillar 3208 whose cylinder block shown directly below was produced with 18 head bolts per head (almost twice as many as the 8.2) and a ¢ÂÂfull deck¢Â that naturally supports the top of each cylinder, preventing the cylinders from flexing and working against the head gasket, damaging the head gasket. Caterpillar 3208 ¢ÄÄÅParent Bore¢ÄÄÅ Cylinder Block with Full ¢ÄÄÅDeck¢ÄÅÅ and 18 Head Bolts per Head. Unfortunately, the cheaper Detroit Diesel 8.2 engine block, as clearly illustrated in their ¢ÄÄÅParent Bore¢ÄÄÅ brochure shown directly below, has neither. Detroit Diesel 8.2L Block with ¢ÂÂÂFree Standing Cylinders¢Â (Note the open cooling jackets around the cylinders) This brochure is available for eicifrepus al ed sjÂmedA. 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Operation of the 8.2 at flank (full) speed in marine service, especially when turbocharged, is not wise unless the propeller is ¢ÃÂÂunder-pitched¢ÃÂÂ, allowing the engine to run more easily. This will also be discussed later in this article under ¢ÃÂÂHow to keep the 8.2 with a ¢ÃÂÂHow to keep the 8.2 alive¢ÃÂÂ. Although GM reportedly considered producing the 8.2 with a ¢ÃÂÂHow to keep the 8.2 with a ¢ÃÂÂFull Deck¢Ã when production was moved to GM¢ÃÂS automotive division in Canada, this unfortunately never came to fruition. The cylinder head must also be checked for flatness as they sometimes warp when overheated. They must also be checked for cracks and other damage that can result from overheating or hydrolocking. GM recommends that the smaller diameter head bolts be upgraded to the larger diameter head bolts. Before any head bolts are reused, they must be checked for signs of stretching damage, fatigue damage or thread bolts and hydrolocking are discussed in greater detail a little later in this article. Parent Bore Cylinders Most diesel engine blocks are cast and machined to receive replaceable cylinder liners (either dry liners like some of the Ford-Lehman engines or wet liners are usually machined to fit ¢ÂÂstandard¢Â bore size pistons. If a ¢ÂÂLinered¢Â engine suffers excessive liner wear, or damage such as from overheat scoring or rust pitting, the liner is simply replaced. The 8.2¢ÅÅÅs cylinders, on the other hand, are cast and machined (e.g. bored and honed) directly into the engine block casting to fit ¢ÅÅÅstandard¢ÅÅÅ bore size pistons. These are called ¢ÅÅÅparent bore¢ÅÅÅ or ¢ÅÅÅnative bore¢ÅÅÅ cylinders. Most gasoline automobile engines are ¢AÂAparent bore¢ÂAA since they are very cheap to build. This is also the case in some diesel engines, such as overheating score Or the picadlines of óxide, the cylinders can be bored and perfected to adapt to the large pistons. When the 8.2 block is boring and perfected for large pistons, the unaccous cylinders are already left more thin and more than digiles, which makes the cylinders are already left more thin and more than digiles. As illustrated below, the Detroit Diesel Service Manual 8.2L #6SE421 describes in the notes of the 1.0 store (the pages 78 and 79 of the manual) the procedure to installation. In engines with thick wall cylinders and complete decks, repair sleeves installation has been carried out with great © xito. Unfortunately, engines reconstructive who have tried of the base of the cylinder shock, making the 8.2 cylinders more prone to flexion and, consequent, in some cases, the cylinder shock now do not exist, since GM ceased to produce the main melting pieces for a long time, and the used blocks â & <a event edam dna dengiseder saw flesti teksag daeh eht ot detam yeht erehw kcolb dna daeh daeh fo noitrotsidsid eht esaercni ot devp the ,tcaf . Eht gnivlos ot ehc emoc â ETO EB Senigne 2.8 Reilrae lla taht dednemmocer Erofereht .kolb eht ot sdaeh eht dloh retteb spleh Hcihw Daeh 2.8 Ledom Retal .Deh Rep Stlob Daeh 01 ylno SAH 2.8 Leseid Tiored eht saerehw daeh rep stlob daeh 81 evah hcae 8023 rallippretac eht dna 555-v snimmuc stlob daeh Na Hcus Gniriugca Taht Ksir hguone Ecuder yam yam tsoc gnippihs dna ecirp Hol yrev ro/dna yevrus enigne repopp .gniriaper , 2.8 EHT â€â€ã¢En-ekatâ€â¢êEn-ekatâ€â¢êEn-ekatâ€â¢ 2.8 Enrum Dna Evitomotua Elbasuer tfahsknarc eht fl .nrut ot gniunitnoc erofeb dor gnitcennoc a tneb dna ,rednilyc eht ni diuqil elttil a htiw dekcolordyh tsuj evah yam enigne eht fl .nrut ot gniunitnoc erofeb dor gnitcennoc a tneb dna ,rednilyc eht ni diuqil elttil a htiw dekcolordyh tsuj evah yam enigne eht fl .nrut ot gniunitnoc erofeb dor gnitcennoc a tneb dna ,rednilyc eht ni diuqil elttil a htiw dekcolordyh tsuj evah yam enigne eht elihw lausu neht erom ekorts noisserpmoc a gnirud nwod wols ot smees tfahsknarc eht fl tfahsknarc 2.8 leseiD tiorteD. elbasunu erofereht dna detsiwt ylthgils eb ot ti dnuof noitcepsni hguoroht tub, noitidnoc doog ni eb ot sraeppa taht tfahsknarc 2.8 na si woleb nwohS. kcolb eht ni selddas gniraeb niam eht fo gnikcarc dna stlob gniraeb niam eht fo gnikcarc dna stlob gniraeb niam eht fo gnikcarc eht fl gnitsiwt sedulcni derevocsidnu seog netfo taht egamad lanoitiddA A A A . woleb serutcip eht ni nees ylraelc eb nac egamad dor gnitcennoc gnitluser eht fo selpmaxE .noitanimaxe lluf eht rof gnikcolordyh no elcitra ruo Ees .Retne Daed pot raen notsip eht neht nehw dor gnitcennoc eht taht egarelni tsomla tsomla ot ot eud sihtâ w fo tol a neht enigne eht ot egamad ot egamad esuac netfo oduesp ro gnibbew nezarb/dedlew a htiw meht gninioj ro lairetam fo epyt emos htiw kcolb eht dna srednilyc eht neewteb pag eht gnillif sa hcus evitceffe on vletanutrofnU. htrof dna kcab gnikrow srednilyc eht vb dehsurc gnieb morf kcab ecnuob nac yeht os Elbixelf DNA gnorts htob eb tsum tsum daeh daeh Eseht .Tekag mg enginagagreg ,retal eht ot nosrapmoc lausiv yb denreCDIs Eb yllausu nac talksag al ne rev edeup es)nAlloh ed odioved(etnallirb latem le ednod ahcered amertxe ed n³Atsip le etnemlaicepse, roiretna 2.8 negami al ne senotsip sol ed samic sal ne sodarg setnerefid ne rev edeup es otcefe etsE .n³Aitsubmoc ed aram; Ac al ed eicifrepus al ed s©Avart a Alla edsed edneitxe es y)ator azebac o atnuj ed aguf anu omoc(auga led not nu ple ne auga le rop , odunsed latem le atsah osulcni , aropav ed adaipmilâ etnemlaretil ¡Âtse sacil;Âtem seicifrepus sal ne onobrac ed na Aitsubmoc ed saram;Ac al ne ecudortni es)etnalegnocitna ed aguf al omoc(auga le odnauc)senotsip sol ed roirepus etrap al odneyulcni(na Aitsubmoc ed saram;Ac al ne ecudortni es)etnalegnocitna ed aguf al omoc(auga le odnauc)senotsip sol ed roirepus sal ne etrap al odneyulcni(na Aitsubmoc ed saram;Ac al ne ecudortni es)etnalegnocitna ed aguf al omoc(auga le odnauc)senotsip sol ed roirepus etrap al odneyulcni(na Aitsubmoc ed saram;Ac al ne ecudortni es)etnalegnocitna ed aguf al omoc(auga le odnauc)senotsip sol ed roirepus etrap al odneyulcni(na Aitsubmoc ed saram;Ac al ne ecudortni es)etnalegnocitna ed aguf eneit euq otcefe le ribircsed arap rotua etse rop oda±Âuca onimr©Ât le se âgnihsaW retaWâ .odneirroc abatse rotom le sartneim sordnilic sol ne y âodaeuqolbâ azebac al ed rodareleca led ¡Âlla s¡Âm artlif es euq rotom led etnaregirfer ed aicnedive artseum rotom lE .euqolb led ortned odal nu a sodalbod nabatse y areuf aicah odanoisrotsid naÂbah âgnidnats-erbilâ ed sordnilic sol eugrop oditimrep etimAl led ¡Ãlla s¡Ãm ohcum seicifrepus sal ato otneimaerapa ed eicifrepus al ed otneimaerapa ed eicifrepus al e azebac noc rotom euqolB 2.8 leseiD tiorteD .saruc y saicneucesnoc ,sasuac sus ,ratselam etse ed atelpmoc n³Aicpircsed al arap oeuqolb le erbos bew anigjAp artseun aeV .raunitnoc arap etneicifus ol alralbod arap allirav al artnoc otneimacnalapa etneicifus ol alralbod arap oeuqolb le erbos bew anigjAp artseun aeV .raunitnoc arap etneicifus ol alralbod arap allirav al artnoc otneimacnalapa etneicifus ol alralbod arap oeuqolb le erbos bew anigjAp artseun aeV .raunitnoc arap etneicifus ol alralbod arap oeuqolb le erbos bew anigjAp artseun aeV .raunitnoc arap etneicifus ellorrased tfahsknarc le euq ed setna n³Atsip le odnarap ,ordnilic le ne odiuqAl sjAm noc odaeuqolbordih ah etnemelbaborp secnotne ,gniknarc le sartneim etnematelpmoc of the piston. An engine can hydroblock while running if its air intake is submerged under water, as in the case of a swamp or sinking. However, it is almost impossible for an engine to ingest enough water in the cylinders through a blow. for hydrock, the engine, since such water, will simply form steam and go through the exhaust port during the exhaust race. As a note, it is not uncommon for high performance engines and military aircraft engines of World War II, are equipped with "water injection" that spray water at the engine entrance While the engine is not uncommon for high performance engines. working without hydrolying the engine. However, if the engine is started by the boot engine is turned off as in the cylinder (s), pistons hydrolaage and the damage to the connection connection (s), it is more likely to result. In addition, the ciga ± the torsion will probably suffer and can break. And the main tapas and armchairs can suffer stretching and damage for cracking for extremely high loads in the "extreme" bil. Many of the lower end failures of the 8.2S have been caused by blowing head joints that in turn resulted in a hydroling. Like many other 8.2 engines, Hydolocking made this 8.2 engine in particular show up without reselder. The exhaustive exam should reveal whether a block is too damaged that they are not rehebable have been rebuilt and, consequently, have suffered an early failure, if not immediate. Due to the inherent (and not impossible) deficiencies mentioned above, the most experienced mechanics considers that the reconstruction of an 8.2 is reckless and many veteran rebuilders simply refuse to rebuild them for fear of an early collection. How the length of the piston skirt affects the ultimate life of the engine there is a direct relationship between the of the skirt of the piston and the length of the a ostile engine. How much short is the skirt of the pistons, the rings and the orifices of the cylinder. As shown in the Cycle diagram above, the pistons, the rings and the orifices of the cylinder. the less lubricated surface that the piston can provide against the cylinder, the greater the wear on the components. In addition, the shorter the piston skirt, the greater the tendency of the piston skirts to support the highest lateral loads in the piston skirt shown below to the right. Longer life engines usually have piston skirts at least while the cylinder diameter. The 8.2 engine has short piston skirts resulting in a shorter engine service life. See how Piston Skirt Longitude Affects the life of the engine piston would not survive the compression stress of a diesel engine, etc. 350ci Chevy V8 Short-Lifed 8.2 Long-Lifed Cat · Also take into account how the contact surfaces of the Chevy piston skirt and the 8.2 piston skirt and the 8.2 piston skirt are also cut to provide cleaning for rotary crankshafts when the pistons are close to bottom-dead-centre (BDC) which allows the short connection of rods. The 8.2 was designed with cut-off piston skirts and short connection bars so that the cylinders could be shorter and shorter. so the overall height of the engine lighter and cheaper to build. Likethe 8.2 has a much shorter service life expected, then other engines with longer piston skirts. However, due to the other shortcomings of 8.2, the 8.2 rarely survives enough to "squake." Other Piston shorts Also compare the distance is much less in the 8.2 piston that makes the piston 8.2 and rings much more vulnerable to damage caused by overheating of the engine, thermal leakage and detonation then the Caterpillar piston. Note wear and damage to the piston. This image is found in the 8.2 brochure shown above. This brochure states that "As you can see, these parts remained in similar conditions, showing little or no wear. In fact, they were deactivated within the new specifications of the part." They continued to make life projections take into account the RATE OF WEAR? The pamphlet does not mention any initial measurement of pre-built micrometer. Without these initial measurements, no valid projections can be made. Specifications are a range. If the component was measured at one end of the range at 3,000 hours, the wear rate would be considered very high and the very low life expectancy. Unlike the pamphlet's assertion that "the piston itself is projected to live 30,000 hours". the piston shown (at 3,000 hours) is so misused and damaged that it is no longer usable due to metal transfer, scuffing and score. This is also true in the piston rings, connecting the main bearingsand several other components clearly shown in the brochure. No competent meconic would regroup this engine with any of these poorly used and damaged components. Detroit 8.2 Failures in the Cigã¹/4eã ± al and the bearing The 8.2 engine below has "engraving" the connecting rod #4 through the cylinder block and the oil tray near the surfaces where they join, hitting holes in both. In this case, the damage inherent in the inherent "lower extreme" due to a refrigerant escape in a cylinder of a blow joint as previously discussed as the root cause of this fault. Detroit diesel 8.2 with a rod #4 thrown through the block a "lower end". "Hydolocking" can cause serious damage to the connection of connection 8.2, cigã war of spun "and" hand rods "are not caused by" hydrock "are too frequent. However, these problems are not uncommon from the majority of cylinder configuration engines" V "more small, especially those those with cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially those those with the cylinder configuration engines" V "more small, especially the cylinder configuration engines" V "more small, especially the cylinder configuration engines" V "more small, especially the cylinder configuration engines" V "mo wide width of a small motor la Libnet 4 rod bearings. With the double pistons connected to a Cigã á ± al V8 that is often no longer a 4 -cylinders in line of the same hole, there is simply not much space for the rod bearings, the main bearings of the Cigã¼eà ± al and the cligots of Cigã¼eà ± al. Keep in mind how narrow the networks of Cigã¼eà ± al, the counterweights, the main bearings and the bearing sof the connecting rod in the short ciga¹/4ea ± al 8.2 shown below. In the image, they have The pistons and connecting rod and the cigages show a serious wear and and indicating imminent rod bearing failure. Also note the discoloration of the crankshaft, bearing cap (at the left end of picture) indicating that the bearing has overheated and has failed. Engine oil analysis tippedoff the prospective buyer to this engine ¢ÃÂÂs internal damage and imminent demise. Crowded Detroit Diesel 8.2 Crankcase with damaged rod bearings ¢Ã commonly used in 4-Stroke Cycle engines including the 8.2 crankshaft bearings, the narrower the bearings, the more difficult it is maintain an adequate lubricating oil film between the crankshaft AÂAs steel surface of the bearings by the heavy loads of a high compression diesel engine especially at higher RPM AÂAs. In the V8 crankcase pictured below with the connecting rod cap removed, see how narrow the rod bearing has to be in order to clear the radius cut on the shoulder of the crankshaft from cracking at the transition from the horizontal journal shoulder. V8 Crankshaft and Connecting Rod with the narrow rod bearing highlighted in red. Without an adequate oil film to keep the metal surfaces of the crankshaft and bearings properly separated, they will suffer erosion of the metal surfaces or worse yet make contact with each other causing metal transfer and scoring the surfaces, making bearing failure imminent. This damage can be clearly seen on the bearing shell shown below that was removed from the engine pictured second above. The soft lead/aluminum based overlay which makes catastrophic of this impending bearing. Note that wear is slightly more pronounced on one side of the bearing (doing the bottom of the picture), which suggests that the biela is slightly bent. When checked, the bar proved to be slightly bent, probably by hydrolarse of the piston at some point in the immediate past. It's not weird that an engine suffers this damage after a blown head joint causes hydrolarse of the piston at some point in the immediate past. It's not weird that an engine suffers this damage after a blown head joint causes hydrolarse of the piston at some point in the immediate past. damage after a blown head joint, and this damage is not discovered and only the head joint is replaced, the engine is obviously doomed to a catastrophic failure of the lower end. Detroit Diesel 8.2 Bearing that shows serious score damage of the lower hydrolant end, which in an 8.2 is usually caused by a blown head joint. These narrow bearings are also more susceptible to oil damage from the engine oil will dilute the oil so that it cannot keep a proper film between the metal parts and a failure of the lower end. An engine oil analysis that indicates high levels of fuel, lead, copper and iron would predict a failure for the damage of the lower end. An engine oil. A cigüeñal full of people: even though the pins of the biela in a V8 crank are the widest magazines in the crank, when assembled, the V8 crank will have two connecting rods packed into each rod diary that leave little room for each individual rod bearing. Storm V8 with two rods assembled in each diaryIn the third image above and the illustration below, it is easy to see how narrow the rod bearings of a 8.2 should be. Take into account the two oil feeding holes per diary of the A .eruliaf gniraeb ylrae esuac nac taht secafrus lanruoj gniraeb roop yrev ni tluser ylisae nac erudecorp flesruoy-ti-oD edurc rehtar sihT .htolc sucorc neht dna htolc(yreme gnisu)3 euro10 J I'm gonna go J more prone to cracking and breaking as shown below. V8 Crankshaft with broken web near front end of crankshaft (left). By comparison, the inline 4-cylinder crankshaft below which will have only one rod fitted per journals. This crankshaft is from a 212 cubic inch displacement engine, which is less then half the displacement of the 500 cubic inch 8.2 engine. Detroit Diesel 4-53 4-cylinder 2-Stroke Cycle crankshaft. The inline 4-cylinder 2-Stroke Cycle crankshaft shown above has 5 main bearings. The crank webs, and the width and diameter of the main and rod bearings have been optimized to carry the stress and load of a high compression, high output engine. By comparison, the V8 crankshaft has the same number of main bearings for twice as many cylinders, and the V8 main bearings for twice as many cylinders, and the V8 main bearings or main bearings or main bearings or main bearings or main bearings for twice as many cylinders, and the V8 main bearings or main bearings to be wide enough to carry the heavy loads generated by a high speed, high compression, high output engine. Narrow main bearing saddles in the cylinder block cannot support the crankshaft as well as wider and stronger components can. Rapid bearing wear and stretching of the caps, bolts and saddles are common in high compression engines, and are even more susceptible to ¢ÂÂAHydrolocking¢ÂÂA damage. Notice that the main bearing journals of the V8 crankshafts shown in the illustration and pictures above have been increased in diameter to increase the bearing surface in an effort to compensate for their narrowness. But at some point this becomes counter-productive because the increased diameter increases the slip-bearing surface speed which it more difficult for the oil to maintain adequate oil film thickness at higher RPM¢ÃÂÂs. By comparison, a 4-cylinder crank¢ÃÂs main bearings can be wider so they can more easily maintain oil film thickness and carry the loads, hence the journals can be smaller in diameter to reduce bearing surface speed. This is why inline engines with the wider bearings, stronger crank webs, and main bearings between each cylinder, can be air charged (e.g. with a turbocharger) to reliably produce more than twice the horsepower per unit of displacement then a small V8 like the 8.2. Air-charging these stronger inline diesel engines can also enable them to run cleaner with fewer emissions as explained in our articles Fuel Fundamentals and Selecting the Right Diesel Engine for Your Boat. Engines with Å Ålonger piston strokes Å Åhave the advantage of typically producing much higher torque at slower crankshaft speeds (RPMs). Å ÅThe 8.2 was designed with a stroke much shorter then most other diesel engines of this displacement. It is just slightly ¢ÂÂunder-square¢Â with a 108mm bore x 112mm stroke. Besides allowing the engine height to be lower, the shorter stroke also has the advantage of reducing the load on the rod bearings. is higher. Unfortunately, any of these short stroke, nearly-square and over-square engines produce less torque and have to be set-up to run at higher RPM¢ÂÂs to produce their maximum power, which is limited by their increased crankshaft slip-bearing surface speeds. 3¢ÅÂ3 The long motor "OverSquare" has a smaller boredom than the stroke (Example: 2 "Bore and 6". Some very light diesel engines are "Square" or "Oversquare" and therefore operate at higher roms and produce less torque than the "Ensquare". Most diesel engines and heavy-duty petrol engines are "Oversquare" and operate at lower rpms, but can produce a higher pair. In conclusion, the previous comparisons show why the smaller V8 engines that lack the space for the wider crankshaft bearings and the strongest crank networks are not capable of the highest power outputs of the comparable online displacement engines. These are some of the main reasons why most engine manufacturers have abandoned small V8 diesel engines for use in the most demanding applications, especially the 6 turbocharged cylinders online with 7 main bearings such as marine service, and have adopted online configurations, especially the 6 turbocharged cylinders online with 7 main bearings such as marine service, and have adopted online configurations, especially the 6 turbocharged cylinders online with 7 main bearings such as marine service, and have adopted online configurations, especially the Ford and GM van engines, have successfully achieved a reliable service as marine propulsion engines. The larger V8 engines with cylinder have more space for larger crankshaft bearings and stronger crankshaft networks, which means they can have much stronger "extmos de Bottom" than allows them To produce in a reliable way, much smaller outputs by displacement unit, smaller ones. Other problems of 8.2 tuning the engine, especially adjusting the injectors, is complex, takes a long time and requires tools They're getting smaller. One of these tools is the synchronization pin and the guide tool #J 29139 illustrated in the Sec. This manual is available to current members of the academy to see from our Academy elbarroy. Academy odaD .n³Åicalumuca al natnemof euq)F^oÅ008 ed ojabed rop(n³Åitsubmoc ed sag ed sarutarepmet sal ¡Åricuder otse ,etnemadanutrofaseD .etneipicer led orecurc ed dadicolev al odneicuder ,oirasecen se is ,y adipiÃr n³Ãicacilpa anu nE .s2.8 sus noc amelborp nºÃgnin o socop odatnemirepxe nah senoimac ed serodarepo sonugla eug ose rop sE .riviverbos a odaduya ah ol eug odartsomed ah ,rodareleca le raivila y raibmac la ,)%08 led ojabed rop(adicuder aicnetop anu a etnemlanoicnetni arepo es 2.8 rotom le iS .saniloc ralacse la y n³Aicaceleca al etnarud olos etnemlareneg, opmeit ohcum etnarud adilas ed aicnetop y dadicolev royam a arepo es zev arar rotom le ,ralucihev n³Aicacelpa anu ne ,etnemadanutrofA .)olucAtra etse ne etnaleda sjÅm rotom led senoicacificepse ed albat al etlusnoc(satla yum aicnetop ed sadilas ricudorp arap 2.8 serotom sol ³Åicelbatse acnun leseiD tiorteD ,sadiconocer setnerehni sedadilibed satse a odibed 2.8 le oviv renetnam om³ÅC .sasacse odneivlov njÅtse es n©Åibmat sadazilitu sadasu sazeip sal y setnetsixeni etnemacitcjÅrp nos).cte , sela±Ãe¼Ãgic , sazebac , seugolb , riced se(selapicnirp sazeip saveun saL .sarac siÃu y sasacse odneivlov njÃtse es dadilac ed ozalpmeer ed sazeip saveun sat. selate saceip saveun sace odneivlov njÃtse es dadilac ed ozalpmeer ed sazeip saveun sace odneivlov njÃtse es dadilac ed ozalpmeer ed sazeip saveun sat. selate sace odneivlov njÃtse es dadilac ed ozalpmeer ed sazeip saveun saveun sace odneivlov njÃtse jÄtse otse orep ,sadauceda satneimarreh sal eneit ay euq otneimidecorp le ne odatnemirepxe y rodeconoc neiugla a rartnocne etneinevnoc sjÄm ohcum aÄres .sadireuqer selaicepse satneimarreh sal sadiulcni ,launam led)41(n³Aicces ase ne ebircsed es otelpmoc otneimidecorp IE The practice of running routinely at full speed (flank speed) to exploit the carbon soot is not recommended with 8.2, because doing so often results in the failure of the head o injection¢Ã are limited because the 8.2 should not be run at full throttle when most of the soot would be ¢ÃÂŝteam-cleaned¢Ã and blown out. But addingà Âfuel additivesà Âthat help keep fuel injectors clean and reduce carbon buildup can be quite helpful. Like many 4-Stroke Cycle engines, the 8.2 will tend to detonate when started in colder weather. Detonation is the phenomenon when the heated gases from combustion chamber has an overabundance of sound and generate a supersonic shockwave. Detonation in a cold engine is the result of the increased ignition lag-time that unfortunately, delays ignition until the combustion chamber has an overabundance of fuel. Once ignited, the large quantity of fuel burns too fast, generating a shockwave. This shockwave or ¢ÃÂÂsonic boom¢Ã if you like, can be heard by the naked ear as the characteristic ¢ÃÂÂknock¢Ã or ¢AÂAsonic boom¢Ã if you like, can be heard by the naked ear as the characteristic ¢ÃÂÂknock¢Ã or ¢AÂAsonic boom¢Ã if you like, can be heard by the naked ear as the characteristic ¢ÃÂÂknock¢Ã or ¢AÂAsonic boom¢Ã or ¢AAsonic boom¢Ã or ¢AÂAsonic boom¢Ã or ¢AAsonic boom¢ÃA or ¢AAsonic boom¢Ã or ¢AAsonic boom¢ÃA or ¢AAsonic boom¢ÃA or ¢AAsonic boom¢ÃA or ¢AAsonic boom¢ÃA or ¢AAsonic boom¢AAsonic boom¢AAsonic boom¢AAsonic boom¢AAsonic boom¢ÃA or ¢AAsonic boom¢AAsonic boom¢Asonic boom¢AAsonic boom¢AAsonic boom¢AAsonic boom¢AAsonic boom¢Asonic boom

the cylinder, the lower the frequency. When detonation occurs in the 8.2, which mechanically injects the diesel fuel directly into the relatively fragile cylinder instead of into a heavily reinforced precombustion chamber, the shockwave too often causes damage to the already \$\proptilon A \proptilon weight a vertex of the shockwave too often causes damage to the already \$\proptilon A \proptilon weight a vertex of the shockwave too often causes damage to the already \$\proptilon A \proptilon weight a vertex of the already \$\proptilon A \proptilon weight a vertex of the shockwave too often causes damage to the already \$\proptilon A \proptilon weight a vertex of the already \$\proptilon A \proptilo shockwave. Starting any diesel engine, but especially an 8.2 in cold temperatures is greatly improved by fitting an engine warming device such as a block heater or an intake air heater. Heating the engine or the incoming air reduces the ignition lag-time, avoiding detonation. It is never a good idea to use ¢ÂÂEther¢Â to start an 8.2 as it will often detonate in the cylinders causing head gasket damage or worse. Detroit Diesel made the mistake of providing a cold weather starting fluid injection canister as an on the automotive and industrial versions of the 8.2, just like they had offered on their 2-Stroke Cycle engines which were not prone to detonation, giving the impression that spraying starting fluid into the 8.2 was acceptable. Of course it proved to be detrimental and many 8.2 engines have been seriously damaged as a result. The starting fluid device was never offered for the marine version of the 8.2 because having such a volatile fuel as starting fluid in the engine space of a vessel, especially a diesel fueled one, is extremely dangerous. Why are volatile fuels such as starting fluid, gasoline or propane so dangerous in diesel powered vessels? Well remember that electrical devices such as relays, generators, alternators and starter motors on gasoline fueled inboard engines are not required to have electrical equipment designed with ignition protection and therefore can provide an ignition source such as a spark that can result in an explosion and fire. Also, a diesel engine can ¢Ã on a volatile airborne fuel in the engine space. So instead of using starting fluid, if the temperature is too cold for the engine to start easily, it is better to fit an engine warming device such as a block heater which is usually AC powered and/or an intake air heater which is usually DC and can be powered by the ship¢ÂÂs cooling system, especially the raw water pickup and sea strainer. Keep them clear of any obstructions. Also keep the raw water pump impeller, the heat exchanger, the engine coolant (antifreeze), the pressure cap, all hoses, and the engine belts and pulleys in good shape. The exhaust mixing elbows on wet exhaust systems should be routinely checked for deterioration and clogging. Due to the poor design detailed above regarding head gasket failures, even the slightest can result in serious consequences. Consider modernizing the engine with the larger head bolts and later, stronger head joints. The engine coolant fluid analysis and engine oil can help detect a leakage joint and can also help detect a leakage bororscope for internal engine damage, and "water wash", which is evidence of a "Blogh" head board. If you replace injectors, be careful. Injector marks may not indicate that the injectors that deliver too much fuel for the engines with lower or very little fuel for the higher engines. Make sure that the fuel discharge holes of injectors, valves, etc. are the right size for the nominal power of the engine and using the property. Always use a quality diesel engine lubricating oil like Delo 400. Do not use Delo 100, as it is a low detergent oil intended for the 2-time Detroit Diesel cycle engines. See our website about engine, as the oil and additives tend to separate over time. This is especially true for the larger oil containers, such as the battery, that they should shake routinely to mix the heaviest additives such as zinc that have settled in the bottom of the drum. Always lanigiro otelpmoc ojulf led si Åmeda ssapyb ed etieca ed ortlif nu noc rotom le racoloc eredisnoC. dadilac ed etieca ed ortlif nu esu erpmeiS. latem le arap etieca ed sortlif ranoiccepsni erbos bew anigiãp artseun aeV.latem ed acsub ne olesãver y ougitna ortlif le atroc ogeuL. etieca ed oibmac adac etnarud etieca ed oibmac adac hcus htehw ۉNevah Smelborp sâ€â£â2.8 Eht taht gniyned on ereht .ereos niaga tub ,smelborp sâ€â€â2.8 Eht ot Eud ,Tetanutrofnu .Ehirp Elbanosaer Rehtar Rieht Ot Eud Noislupp s2.8 Htiw det tif erew slessev fo rebumm gnisirprus that .srelio-erlip enigne if egapbew now .raew puttrats ecuder tigne laicremoc ot dettif netfo era srelio-erp . 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Restore the overload, the injector and the racks? All of reference using dial indicators ??? Â of the main Detroit Diesel competitors have never produced any engines to compete in this growing market. Similar engines were produced by other main manufacturers of diesel engines to compete in this growing market. as other fatal problems. Finally, Cummins decided on the engines of the "B" and "C" series, such as six -cylinder 5.9 -liter and 8.3 -liter libers to fill this niche that they have done with quite a lot of it. Caterpillar had left with the medium 1100 truck engine in the 1960s that became the 3160 marine engine. It was a large v8 més engine with 636 cédic cés of displacement, which turned it into a mismal engine It is long with a more long and, therefore, there are more space for cigã ourseves to the widths. He still suffered from a "Bottom final" day like other V8 rivals. But not so bad. However, in marine use, a gear design driven by the interference adjustment cams "Hit-Strike" or a "change of life" that would. In turn, it results in an internal cadastró to the engine. When Caterpillar went out with the successor of 3160, they 3208, they struggled to strengthen the "Bottom end" in which they only managed to improve a little, but they did nothing to remedy the weakness of the CA; mara team. However, there is a solution for this weakness that piercing the gear and the cam tree for the bras of anticipation. anticipation. anticipation. dna rebmun laires enigne eht sedulcni taht lebaL noitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuqe dna snoitpO eht yb deifitnedi eb nac senigne 2.8 eht rof tnempiuq pukcip dna snav rieht ni droF ro MG yb desu senigne leseid ytud-thgil 8V llams eht ekilnu ,staob dna sessub ,skcurt ni flesti nevorp ylniatrec sah 9.5 snimmuC ehT .tif ot moor hguone si ereht nehw 2.8 eht rof tnemecalper tnellecxe na edam osla sah enigne leseid 9.5 seires B snimmuC ehT .tif ot moor hguone si ereht nehw 2.8 eht rof tnemecalper tnellecxe na edam osla sah enigne leseid 9.5 seires B snimmuC ehT .tif ot moor hguone si ereht nehw 2.8 eht rof tnemecalper tnellecxe na edam osla sah enigne leseid 9.5 seires B snimmuC ehT .tif ot moor hguone si ereht nehw 2.8 eht rof tnemecalper tnellecxe na edam osla sah enigne leseid 9.5 seires B snimmuC ehT .tif ot moor hguone si ereht nehw 2.8 eht rof tnemecalper tnellecxe na edam osla sah enigne leseid 9.5 seires B snimmuC ehT .tif ot moor hguone si ereht nehw 2.8 eht rof tnemecalper tnellecxe na edam osla sah enigne leseid 9.5 seires B snimmuC ehT .tif ot moor hguone si ereht nehw 2.8 eht rof tnemecalper tnellecxe na edam osla sah enigne leseid 9.5 seires B snimmuC ehT .tif ot moor hguone si ereht nehw 2.8 eht rof tnemecalper tnellecxe na edam osla sah enigne leseid 9.5 seires B snimmuC ehT .tif ot moor hguone si ereht nehw 2.8 eht rof tnemecalper tnellecxe na edam osla sah enigne leseid 9.5 seires B snimmuC ehT .tif ot moor hguone si ereht nehw 2.8 eht rof tnemecalper tnellecxe na edam osla sah enigne leseid 9.5 seires B snimmuC ehT .tif ot moor hguone si ereht nehw 2.8 eht rof tnemecalper tnellecxe na edam osla sah enigne leseid 9.5 seires B snimmuC ehT .tif ot moor hguone si ereht nehw derewoper yllufsseccus neeb evah .cte ,srotareneg ,staob ,sessub ,skcurt derewop 2.8 ynaM .yltnecer litnu snimmuC ni redlohekats egral a neeb sah ynapmoC rotoM droF eht taht etoN .rewopesroh 074 Sa Hgih Sa Detar Era Dna Pukcip Mar Egdod Eht Ni SevlesMeht Devorp Senigne Retil 9.5 SEERS B EHT .SNIMMUC MORF SENIGNE enilni rednilyc-6 retiL 3.8 urht 9,5 eht era ssalc siht ni sredael wen eht revewoh ,srehto yna revo senigne esab eht emaceb esehT .rewopesroH 541 ot 011 ta detar erew sledom ertiL 22.6 detaripsa yllarutan ehT .srenwo rieht gnivres ylbadneped llits meht fo ytirojam tsav a htiw .cte ,slessev ,seirrol ,srotcart gnirewop , noitcudorp suounitnoc ni sraey 06 neht erom fo latot a rof ,yrutnec wen eht otni sÄÄÅ¢0091 eht fo flah tsal eht hguorht segnahc wef htiw deunitnoc tI .7591 ni noitcudorp deretne enigne enilni rednilyc-6 droF eht fo noisrev gnireenoip eht .emit htiw 2.8 eht erapmoc won .6213 eht sa hcus senigne rednilyc xis enilni ot denrut dna noitarugifnoc 8v llams eht denodnaba yllautnev Number. The engines before the 8G27987 series number were built only with standard equipment. No optional equipment was offered and a model label was not provided. The engines after the 8G27987 series number will have the option label located behind the water pump. A typical model number will have the optional equipment. identification. Specifications of Detroit Diesel 8.2L 4 stroke automotive, industrial and marine motors. Characteristics: Horizontal stork and parent diameter cylinders Keyboard: Types of engine design owners to produce base engines and/or marine engines. ^ The marinizers buy base engines of the producers in the bulk, they marinize them for marine service, and then sell them in a mark, including retail trade. Base motor: manufacturer/driver and base motor model followed by specifications. Cyl: Cylinder Orientation: V = V Pattern (e.g., V-8). Bore & Stroke: $\hat{a} \in ... mm = millimeters. J = ... mm = millimeters. J = ... mm = millimeters. J = ... mm = millimeters. Mm = millimeters. J = ... mm = m$ Displacement = barred volume: $\hat{a} \in |cc| = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (without load). T = liters. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in eci = cubic centimeters$ (cmâ3). $f \in ... l = liters$. $\hat{a} \in ... l$ food turboa. TT = twin Turbos. A = A froyed. A = A froyeproduction/available. that the production ceases, often until the reserves are exhausted. $\hat{A} = data$ source: click on the DS link to see Ds. = Summary of compiled data from multiple sources. $\hat{A} \notin \hat{a}, \neg a_i d = directory$. C = catalyst. $\tilde{a} \notin \hat{a}, \neg ...$ b = brochure. $\tilde{a} \notin \hat{a}, \neg ...$ b = brochure. $\tilde{a} \notin \hat{a}, \neg ...$ b = brochure. $\tilde{a} \notin \hat{a}, \neg a_i d = directory$. C = catalyst. $\tilde{a} \notin \hat{a}, \neg ...$ b = brochure. $\tilde{a} \oplus \hat{a}, \neg ...$ b manual. ? H = History. $\tilde{a} \notin \hat{a}, \neg \hat{a} \notin \hat{a}, \neg \hat{a} \notin \hat{a}, \neg \dots$ f = forum. $\hat{A} \notin \hat{a}, \neg \dots$ f = forum. $\hat{A} \oplus \hat{a} \notin \hat{a}, \neg \dots$ f = forum. $\hat{A} \oplus \hat{a} \notin \hat{a}, \neg \dots$ f = forum. $\hat{A} \oplus \hat{a} \oplus \hat{a}$, $\hat{A} \oplus \hat{a} \oplus \hat{a}$, $\hat{A} \oplus \hat{a} \oplus \hat{a} \oplus \hat{a}$, $\hat{A} \oplus \hat{a} \oplus \hat{a} \oplus \hat{a}$, $\hat{A} \oplus \hat{a} \oplus \hat{a}$, $\hat{A} \oplus \hat{a} \oplus \hat{a} \oplus \hat{a} \oplus \hat{a}$, $\hat{A} \oplus \hat{a} \oplus \hat{a} \oplus \hat{a} \oplus \hat{a}$, $\hat{A} \oplus \hat{a} \oplus \hat{$ new window that shows our website that contains details about that supplier and its products. How to read this table each line shows the data available from the identified data source (DS). The data is shown according to the previous table key. By clicking on the data source link, a new window that shows our website for that data source will be opened. Data sources include catalysts, brochures, specifications sheets, socop sonu ne euq n @Aibmat adreuceR .somartnocne sol odnauc "saton" sal ne somala±Aes sol ,ograbme nis ,albat al ne serorre sotse somigirroc oN .etneuf lairetam le ne sotcaxeni res nedeup sotad sol euq atneuc ne agneT .sotad ed setneuf selpitl^o Am ed ritrap a sodalipmoc sotad ed nemuseR = "... ¢â ¢Ã¦Â ¢â ¦Â ¢â ţ ¢â ţA ¢â ţA ¢â ţA ¢a trap a sodalipmoc sotad ed nemuseR = "... ¢â ¢Ã¦Â ¢â ţ ¢â ţ ¢â ţA ¢a trap a sodalipmoc sotad ed nemuseR = "... ¢â ¢A ţ ¢â ţA)ääå -äääâ iM-N)inI 35A4/w(^ 1mD 5891-4891 0082 -äâ 061 911 NOC iM-N)eniraM(^ ? 1991-9791 0082 -äâ 061 911 NOC iM-N)eniraM(^ ? 1991-9791 0082 -äâ 061 911 TN iM-N)inI 35A4/w(^ 1b ?1991-?9791 0082)äâ 061 911 TNI iM-N)inI 35A4/w(^ 1sD ?8891 0082)äâ 051 211 -äâ iM-N)0017-7804(^ ? 1991-9791 0082)äâ 051 211 -äâ iM-N)inI 35A4/w(^ 1mD 5891-2891 0082)äâ 061 911 TNI iM-N)inI 35A4/w(^ 1mD 5891-2891 0082)äâ 051 211 -äâ iM-N)inI 04A4/w(^ 1bD 1991-? â¦Å¢Ã 052 âjŢà ajŢà âjŢà ajŢà a âjŢà ajŢà ajŢŠajÅ 2sD ?8891 0082 âjŢà 032 271 XAM IM-T)6337-3804(^ 1SD ?8891 0082 âjŢà im-t)filaC 0037-7804(^ ?1991- ?9791 0082 âjŢà im-t ^ 1sD ?3891 0082 âjŢà im-t)0037-7804(^ ?1991- ?9791 0082 âjŢà im-t)07A4 1038-2804(^ 3SD 3891 0023 âjŢà 512 4.061 âjŢà 512 4.061 âjŢà im-t)jni 56C4/W(^ 1SD ?8891 0082 âjŢà 012 751 âjŢà im-t)jni 56C4/W(^ ?1991- ?9791 0082 âjŢà im-t)jni 56C4/W(^ ?1991- ?9791 0082 âjŢà im-t)ini 56C4/W(^ ?1991- ?9791 0082 â noc im-t)eniram(^ 1md 5891-4891 0082 â Å 002 â; Ţà im-t)jni 56a4/w(^ 1BD ?8891 0082 â; Ţà im-t)jni 56a4/w(^ 1BD ?1991- ?9791 0082 â; ŢŠim-t)jni 56a4/w(^ 1BD ?1991- ?9791 0082 â; ŢŠim-t)jni 56a4/w(^ 1BD ?1991- ?9791 0082 â; ŢŠim-t)jni 56a4/w(^ 1BD ?1991- ?9791 0082 â; ŢŠim-t)jni 56a4/w(^ 1BD ?1991- ?9791 0082 â; ŢŠim-t)jni 56a4/w(^ 1BD ?1991- ?9791 0082 â; ŢŠim-t)jni 56a4/w(^ 1BD ?1991- ?9791 0082 â; ŢŠim-t)jni 56a4/w(^ 1BD ?1991- ?9791 0082 â; ŢŠim-t)jni 56a4/w(^ 1BD ?1991- ?9791 0082 â; ŢŠim-t)jni 56a4/w(^ 1BD ?1991- ?9791 0082 â; ŢŠim-t)jni 56a4/w(^ 1BD ?1991- ?9791 0082 â; ŢŠim-t)jni 56a4/w(^ 1BD ?1991- ?9791 0082 â; ŢŠim-t)jni 56a4/w(^ 1BD ?1991- ?9791 0082 â; ŢŠim-t)jni 56a4/w(^ 1BD ?1991- ?9791 0082 â; ŢŠim-t)jni 56a4/w(^ 1BD ?1991- ?9791 0 \hat{a}_{A} im-t ^ 1md 5891 0062 \hat{a}_{A} 561 \hat{a}_{A} \hat{c} im-t)jni 06K4/w(^ 1md 5891 0062 \hat{a}_{A} \hat{c} im-t)jni 06K4/w(^ 1md 5891 0082 \hat{a}_{A} \hat{c} im-t)jni 35a4/w(^ 1md 5891 0082 \hat{a} \hat{A} \hat{c} im-t)jni 56c4/w(^ 1bD ?1991 - ?9791 0082 \hat{a}_{A} \hat{c} im-t)jni 56a4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 35a4/w(^ 1md 5891 - 4891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1bD ?1991 - ?9791 0082 \hat{a}_{A} \hat{c} im-t)jni 56a4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 35a4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 35a4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 - 2891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 0082 \hat{a}_{A} \hat{c} im-t)jni 56c4/w(^ 1md 5891 0082 \hat{a}_{A 061 âjĂ¢Ă âjĂ¢Ă im-t)jnI " " etnerap opit ed opit ed opit ed ordnilic Repair sleeves are NOT recommended for high load applications such as marine propulsion. Stewart & Stevenson marinized a Twin-Turbo version, with no cooler (see picture earlier in this article) *Marine Rated Model. Detroit Diesel Engine Duty Ratings Automotive: CON = Continuous INT = Intermittent MIN = Minimum MAX = Maximum Gross = Gross Power Industrial: CON = Continuous INT = Intermittent PC = Pleasurecraft Johnson & Towers Engine Duty Ratings Marine: CON = Continuous INT = Intermittent PC = Pleasurecraft Stewart & Stevenson Engine Duty Ratings Marine: CON = Continuous INT = Intermittent PC = Pleasurecraft Product Documentation Documentation with Bold Titles are part of our Academy eLibrary! To view the entire document, click on its Bold Title Link to go to our webpage forthat item and then scroll down to the "Academy eLibrary" section on that page.DS = Data Source for listed specifications. ¢AAA Directory Under Development ¢AAA AAdditionalAAProductAADocumentationAA AA If you can help us add documentation that we lack, please submit info/links or PDF via email To:Editor¢AA¥AEverythingAboutBoats.org (Replace "¢AA¥A" with "@") NOT AN ACADEMY MEMBER?CLICK HERE to discover how you can become a Member and gain FULL access tothousands of expanded pages and dozens of excellent programs including our eLibrary! CLICK HERE to view ALL the books, magazines, videos, etc. in our Academ eLibrary.Media are also listed by category on the Topic Pages found on the Right Sidebar ¢ÂÂCLICK HERE to donate any books, magazines, manuals, or videos, etc. to our Library. TABLE KEY: Resource Types are identified by the following Resource Codes (RC).T = Topic Page w/DirectoryV = Vendor.MV = Media Vendor/Creator.MS = Media Source.P = Product.PD = Product = Book.bb = Book - Biography.bf = Book - fiction.m = Magazine. Notes: Resource codes are shown in the correct column labeled as "RC". "â & co^ To see the media, click on the media title to go to out website for those media and then: Show down to the academy's Elibrary section to obtain instructions from media visualization. which are shown in a small source. Pages on the eab site. We should add an appeal to th is listing, sent by email to:^ editor "â ¥ â ¥ EveryTHINGBOUTBOTIS.ORG (replace" ã ¢ â "¢ â ¥" with "@") A @a¾addictionala @ariphere "With"@") Isn't it a member of the Academy? Click here to discover how you can become a member and get full access to thousands of extended pages and dozens of excellent programs, including our Elibrary! Click here to see all books, magazines, videos, etc. In our elbarray academy. Media are also listed by category in the pages of themes found in the right sidebar `â € â € 114 clock here to donate books, magazines, manuals or videos, etc. To our library. All in this página is okay? If there is anything in this web página that needs to solve, know us by email to: editor â ,¢ â ¥ EveryTHINGBOUTBOATS.ORG (replace" ã ¢ â ,¢ â ¥ with "@") This article follows evolving! May Page rough drafts that include raw materials. Visit our FACIFIC ARTICLES Home page to see examples of complete content from our website! Thanks to our amazing collaborators for the constant flow of articles, and our dedicated staff of all volunteers who classify, polish and format them, we get a little closer to our All About Boats goal every day. If you wish to submit an item, See Shipping articles. — TOP 20 MOST POPULAR ARTICLES — Ford Industrial Power Products Diesel EnginesFord 2715ELehman Mfg. Co.Detroit Diesel 8.2Universal Atomic 4Chrysler & Force Outboards Eska Outboard enginesZF Friedrichshafen AGAllison TransmissionAmerican Marine Ltd (Grand Banks)Inspection of baggage Marine Surveyors by CountryBoat Builders By MICBeta MarineWaterwitchAmerican Boat and Yacht Counsel (ABYCance 07USC) **** This website consists almost entirely of three types of web pages as follows: Note in the previous examples that these pages form a natural hierarchy. Unnumbered "^" pages are listed alphabetically in most tables. Media titles in tables are distinguished by their smaller font size. The media (Books, Magazines, Videos, Web Sites,+) are treated as Products. (The product documentation of suppliers is considered Media.) * *The web pages usually contain the following sections: PATH (Show the EAB w/links page string that lead to the page you are viewing). EXAMPLE: PATH: Home » Website Contents » Накали катрани нари наный building of the boat " Quit smoking " Stop leaving the engines of luck " л Наликовальновай ненененыховы $\frac{1}{2}N < \frac{1}{2} + \frac{1}{2}N < \frac{1}{2} + \frac{1}{2}$ ð½Ň <Đ½Ň " Đ½Ň <Đ Đ½Ň< Đ Đ½DµĐ½ĐµĐ½ĐµĐĐĐ½ĐµĐ½Đ½Đ½Đ½ Bu Reengitando ââ ââ ââ ââ ââ ââ ââ ââââââ" (A ",", the comma between the page links in the chain indicates that the pages are not subordinate, but § "precedes to each page of the main theme.) Content of the page (Table of content with links to each are on the same level. See the engine marks in the example above). (The "fair", "â ¬ ̈¬ ̈¬ rego", "â A ̈ â A Ä main section on the page). Page body (the type of page determines the content of your body as follows:). Topics Pages (provider profile of topics: introduction, general description, background, details,+). (Many pages of topics: introduction, general description, background, details,+). contact information, products, services,+). (Manufacturs, resellers, rebastecimientos, patios, topographers, clubs, schools, authors,+). (The means created by a supplier links, specifications, documentation,+). (The means created by a supplier links, specifications, documentation,+). are often treated as a product on their own product page). (Navigation and travel events are often treated as products, media: books, websites, + with links). Page Tail contains the following features of the Aweigh Academy & EAB website: Right sidebar (Menu Website content withto the main subjects of theme and subtites). *** The website pages are classified into the following 16 main themes (with links): the main themes (with links): the main themes (with links): the main themes (with links): topics below are followed by their main sub -themes (with links). 00 a ¢ a, ¬ "" Content, about EAB, contact eab, abbreviations and Repair: Materials, Equipment, Constructors,+. Sea surveys, marine top, schools, DIY inspections,+. Unions,+), unconventional (creative),+. & Crews, & Towing), Over-Tar,+. Anchors, marine, patios, shelves and batteries,+. 11? 12? 13 "" a Boating & Maritime Education: Recreation of sailor, teacher and crew of the ship,+. 14 Å, --regulations: the international and national laws of lawyers. (DIY): Construction and reconditioning of boats, vessel sales, vessel inspections, classes,+. 16? The main topics with their sub -themes can also be foundations of the website content and the right sidebar. What we have achieved so far. Published in more than 300 websites of the main theme of the website content of our website content of our website content and the right sidebar. of main themes pages. Published more than 9,000 FO sdnasuohtot ssecca lluf niag dna dna emocaym woh revocsid ot ereh kcilc, rebmem ymedaca elbaulav dna segap dednapxe gnidulcni etisbewsiht ot ssecca LLUF niag ot NI NGIS tsum srebmeM ymedacA tnerruC.reflesruoY-tI-oD eht o lufpleh yllaicepse dna, royevrus denosaes eht dna rennigeb Ãeht htob rof tnellecxe eb ot nevorp sah esruoc AgniyevruS eniraM ruO .sesruoc no-sdnah dna enilno ymedacA hgiewA srohcnA eht gnihsilop dna gnittamrof yltnerruc era eW. erom od ot drah gnikrow era eW. erom od ew , ngised taob tuoba selcitra oT-woH YID 005 revo dehsilbup .yrbile etisbew bae ruo hguorht srebmem ymedaca ot Elbaweiv 007 Revo Edam Evah os Dna yrarbil ymedaca roo of seussi .yra devoe 002,1 Revoe straP, slaunaMpO, slaunaM noitallatsnI, sediuG rebmuN laireS, serutciP, steehScepS, seruhcorB, sgolataC gnidulcni noitatnemucod tcudorp fo segap 000,021 revo deriuqcA) srotaerc etisbew dna, srecudorp oediv, srehsilbup enizagam, srohtua koob , sreriaper dna srettifer taob , sessentiw trepxe dna syenrotta wal eniram, sloohcs emitiram dna pihsnamaes, gnitaob ,sretrahc thcay dna slatner taob ,sbulc thcay ,snelaed dna srediub taob ,sreipes, sretropsnart taob ,sreipes, sretropsnart taob ,sreipes, sretropsnart taob ,sreipes, snelaed dna srediub taob ,sreipes, sretropsnart taob ,sreipes, snelaed dna srediub taob , sreipes, snelaed dna srediub taob , sreipes , noitatnemucod tcudorp htiw ynam , secivres dna stcudorp rieht FO Noitpirccsed htw tsom , noitamrofni tcatnoc rieht htiw la , segapbew rodnev Pages and articles, and dozens of excellent programs with just a small donation! Comments for public display by e-mail to: Comments TM ¥ EverthingAboutboats.org (replace "â TM ¥" with "@") Please remember to place the title of this website on the subject line of your email. moderate before they appear on this page. See comments on Donald's website: "This is an amazing website. I found the information I needed right away from one of the more than 20,000 free items you provide as a public service. I'm so surprised if this is so much. The site is free. But I still signed up to access the thousands of expanded pages, interesting articles and dozens of valuable programs! And all their staff are unpaid volunteers. Please keep up with the good work. And I congratulate you on your plans to add another 10,000 free news items during the next year. I am delighted to support you in this effort with my little membership donation. Thank you again for all your hard work." From Huey: "I agree with my uncle, I also found that the articles are very enlightening. They say they will take about 100,000 items to cover the full scope they have imagined for the website. They have more than 20,000 items, away and that's pretty good, but it could take several years to get the rest. I also noted that many of the main thematic pages are still in the rough draft stage. I guess they'll be completed as they can get volunteers to work on them. But what I can't understand is why someone would spend time writing in-depth information articles just to give this website free for publication? bew bew oitis etse ne solucAtra sol ed aArovam al eug ecerap Am arap veul. oneuB" :veweD eD "?solle arap vah Written by verv informed people, such as navigation instructors, boat design, boat builders, rigging, electricians, accommodating, marine reparation techniques and marine top. Writing such articles helps establish them as knowledgeable professionals. After everything, this website is growing in content every day. They even had to move to a bigger and more powerful server because the website's trilve has been growing exponentially. "De Louie:" I agree with all the previous ones. This site is being converted with the last reference resource on all aspects of ships and ships for all, from the beginning of the recreational navigator to the experienced professional sailor. I use the thematic pages in the right sidebar to navigate the website. It is like a junior. It is like a junior. Woodchucks guide for navigators. The library of its members of 300 popular and dark books of more than 200 magazine is especially informative. In addition, there is the "Ask-An-Experi program for members where you can get the answer from an expert to any of your ship's questions. And a while of integers is only \$ 25. What treatment! I really love being part of this community of "All about ships" and helps provide thousands of free articles for the public. With my tão ". From Scrooge: "You confer this website as if it were the best from the cut bread. Well, I think it stinks. Of course, you have a lot of information for navigators, and you are adding more every day, but it will do it . Probably I finished. Besides, I don't even have a boat. And I wouldn't have a boat. And I wouldn't have a boat. And I wouldn't have a boat. you could say Baggywrinkle. Then I would locate the money with all my money to keep it guarded and tell all the days. Bah Humbug. "From Daisy:" I am so happy that Donald has the ship so that we and the boys can enjoy the navigation together. And, of course, all children, April, May and June, also love being in the water, especially when the children are there. Oh poor scrooge, the navigation is more fun then I could imagine. "From Scrooge:" After seeing the diversion when I was young. I have had a change of heart, and I am giving each of you a member of the Academy of Life. "From editor:" For those of you who have remained with us so far, thank you very much, and we hope you find this Informative narrative. Your faithful support inspires us to continue working on this phenomenal website. We know we have a lot to do. In last instance, we hope we can help you enjoy the wonder full of the world of navigation as much as we are. We are all waiting to see what you have to say about this article of the website. Send comments to: comments to: comments are welcome. Please send them by email to: editorâ TM ¥ ALLACERCA DEBOATS.ORG (Replace "â TM ¥" with "@"). Be sure to include the title of this página in the library. In addition, their corrections, updates, additions and suggestions are welcome. DEBOATS.ORG (Replace "â TM ¥" with "@"). It has really been amazing to see what we have been able to achieve when we have worked together. Thanks to all those who have supported this cause with their donations of members. "Comments about this particular Pigina Tom: Twin 8.2 on my boat. I found this article very useful to understand the weaknesses of my engines seem to be fine. I am careful and follow your suggestions, I hope to receive several more years of service from them. thanks for the information. keep the good work. I have attached an image of a crankshaft V8 that shows how narrow they have to be the connection rod bearings when two rods are subject to each diary." V8 crankshaft with two rods mounted on each journal bar. from scrod: "Detroit diesel 8.2 liter, head joint failures (without block cover to support the coatings, you would think they would have learned from cadillac 4100) and background problems. It is not up to the legend "Detroit Diesel". From genesis: "Dds 8.2 are actually diesel, and they have the drive injection system that detroits are known, but they are 4 blows. They are also called "fuels," although they were never so good at extracting the highest-BSFC numbers we now get from the electronics. they are matrix engines and have a "open" cover design, which means they are prone to joint problems. the first year engines also had very small heads screws for the proper sealing pressures. I am usually a detroit fan, but this is the only engine of them that would not be the owner." by Mobil Bob: 8.2 detroit. You couldn't give me one even if you've written it with \$20 bills! If you replace them, the engine had to get the camera bored. Replace it and you have to mount the engine block in a bridgeport to re-size the bushing so that the outer gear is garliced, 15mm stretching heads, which later had to be drilled in situ? 17 mm, what a joke! free standing cylinders monobloc much like that of an engine with which cadillac had hell. Restart the overhead, the injector and the shelves of sphere ??? crazy! From Glenn: â € In what we met. A cylinder was what I called bent to the side. When you run a straight edge at the top, one side was high and another low, just as I was trying to go to bed. It was designed and built by the Pontiac division. I would like to know if someone has evidence that this is true. It is not difficult to believe since it is used in many GMC trucks, as well as others and GMC and Pontiac were generally grouped together in terms of concessionaires were and 8.2 was painted blue Pontiac. I have not found anything in any place to say more about the doubt that it was actually a Pontiac product. If anyone has something that connects 8.2 with Pontiac I would like to see it. Thank you all. From Bob: â € œOH, Sã, the fuel squeezer. Very popular in the 80s in the GM and Ford media. The engine was designed by Detroit Diesel but was manufactured in Romulus Mi. The Romulus plant was eventually transferred from Detroit Diesel-Lallison Division to Chevrolet-Pontiac-channel Division during one of Roger Smith's frequent re-org These things for a spell. They were painted a blue very close to the Pontiac blue. Was one of the low power versions (165 h.p.) naturally aspirated, they were quite good? Well ... My experiences were that if 8.2L was one of the most high horse power turbo versions (I think 220 H.P. was Max) comes head joints. Much. There was no too many head screws. But the block was similar to a Chevy Vega in which it was an open deck design. Water jackets were open to the roof surface. There is not much space for the Sella head board to be. He told me that towards the end of the GM production checked the block to a closed deck design but I never saw one as ot dias regrahcâ â, obrutâ â, epnanc e Rof Meht Evah Spohs doog emos Dna Elbaliava Era Stikâ ã, dliuber .tliubailer ro or niâ â, elbaliavaa â .stinu 5 4 ebyam dlot dot ma i .meht sah rotirtid Hcihw ot detimil sti dna elbaliava si dlofinam knab nga eht ylno ,isodotâ ã, edam erew sdlofinam llab ddo ylno ehTÂ Ã.sledom T&J dna tiorteDÂ Ã.8023 taC a gnidliuber naht tnereffid on sti tub sledom rehto ekil srenil Evah edicortnier ot gniog erew dna sdnim rieht tsol dah hguoht i .)Senigne ENILISAG 6-V gnamkam yad ot ot litrepo lits yeht (tlp sulumor eht lles ot gniog ton saw .) 0 erew drop dna mg taht raelc ytterp saw of .)8891 (ECALP KOOT taht nehw tub , saw taht urt woh erus oot ton .ât ۉ€â€â't find ã¢ndid yllacieps eh mg morf Leseid tiored these expel regor nehw taht dnuora gniog romur A saw ereht beà Âavailableà Âbut a good turbo shop can get the partsà Ânew.à Âlnjectors are tricky and I recommend having the ones that came out rebuilt rather than exchange. them out to the few shops left who have the equipment to do these correctly. The only problems I have seen is on the 300HP versions where injectors, bigger tips, and flowed more fuel. The injectors were exchanged. All 300HP versions where injectors were exchange units they went by the markings, and the result was lower power and a confused mechanic and pissed off owner. A Â9 out of 10 detroit mechanics saying these are crappy engines and owners who believe it. A ÂAny diesel engine that gets poor maintenance, worked on by ignorant mechanics, and abused, (over worked, overloaded) will get the same results. There is much to say about this little engine as it was used for many vears in many applications and with many satisfied customers. A AWhat other engine was available in that configuration (size, HP, fuel consumption) during that era that could have fit in its place? A As it is now, the easiest replacement for this engine is a mechanical B series Cummins. For More \$\$ go with a Yanmar, But not much else pound fits in its place. FROM AABe the next to comment about this page. AAA {220402} {220402}

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