```
┌─────────────────────────────────┐
│   v8::internal::compiler        │
│   ::turboshaft::GenericAssembler│
│   OpInterface< Assembler >      │
├─────────────────────────────────┤
├─────────────────────────────────┤
│ + Asm()                         │
│ + ControlFlowHelper_Bind()      │
│ + ControlFlowHelper_BindLoop()  │
│ + ControlFlowHelper_EndLoop()   │
│ + ControlFlowHelper_Foreach()   │
│ + ControlFlowHelper_EndForeach  │
│ Loop()                          │
│ + ControlFlowHelper_While()     │
│ + ControlFlowHelper_EndWhile    │
│ Loop()                          │
│ + ControlFlowHelper_Goto()      │
│ + ControlFlowHelper_GotoIf()    │
│ and 6 more...                   │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│   v8::internal::compiler        │
│   ::turboshaft::TurboshaftAssembler│
│   OpInterface< Assembler >      │
├─────────────────────────────────┤
│ + WordBinop                     │
│ + SignedMulOverflownBits        │
│ + WordBinop                     │
│ + UnsignedMulOverflownBits      │
│ + WordBinop                     │
│ + UnsignedMulOverflownBits      │
│ + OverflowCheckedBinop          │
│ + SignedAdd                     │
│ + OverflowCheckedBinop          │
│ + SignedSub                     │
│ and 99 more...                  │
│ - cached_parameters_            │
│ - cached_centry_stub            │
│ _constants_                     │
│ - in_object_initialization_     │
│ - matcher_                      │
├─────────────────────────────────┤
│ + TurboshaftAssemblerOpInterface()│
│ + matcher()                     │
│ + Word32SignHint()              │
│ + Word32SignHintUnsigned()      │
│ + Word32SignHintSigned()        │
│ + GenericBinop()                │
│ + GenericUnop()                 │
│ + ToNumberOrNumeric()           │
│ + ToNumber()                    │
│ + ToNumeric()                   │
│ and 393 more...                 │
│ - LoadElement()                 │
│ - StoreElement()                │
│ - BranchAndBind()               │
└─────────────────────────────────┘
```

< Assembler< Reducers > >

```
┌─────────────────────────────────┐
│   v8::internal::compiler        │
│   ::turboshaft::TurboshaftAssembler│
│   OpInterface< Assembler< Reducers > >│
├─────────────────────────────────┤
│ + WordBinop                     │
│ + WordBinop                     │
│ + WordBinop                     │
│ + SignedMulOverflownBits        │
│ + UnsignedMulOverflownBits      │
│ + UnsignedMulOverflownBits      │
│ + OverflowCheckedBinop          │
│ + OverflowCheckedBinop          │
│ + OverflowCheckedBinop          │
│ + OverflowCheckedBinop          │
│ and 99 more...                  │
│ - cached_parameters_            │
│ - cached_centry_stub            │
│ _constants_                     │
│ - in_object_initialization_     │
│ - matcher_                      │
├─────────────────────────────────┤
│ + WordBinop()                   │
│ + OverflowCheckedBinop()        │
│ + ShiftRightArithmetic()        │
│ + Comparison()                  │
│ + FloatUnary()                  │
│ + OverflowCheckedUnary()        │
│ + TurboshaftAssemblerOpInterface()│
│ + matcher()                     │
│ + Word32SignHint()              │
│ + Word32SignHintUnsigned()      │
│ and 393 more...                 │
│ - LoadElement()                 │
│ - StoreElement()                │
│ - BranchAndBind()               │
└─────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│   v8::internal::compiler        │
│   ::turboshaft::Assembler       │
│        < Reducers >             │
├─────────────────────────────────┤
│ - current_block_                │
│ - current_catch_block_          │
│ - conceptually_in_a_block_      │
│ - current_operation_origin_     │
├─────────────────────────────────┤
│ + Assembler()                   │
│ + data()                        │
│ + phase_zone()                  │
│ + input_graph()                 │
│ + output_graph()                │
│ + graph_zone()                  │
│ + modifiable_input_graph()      │
│ + NewLoopHeader()               │
│ + NewBlock()                    │
│ + Bind()                        │
│ and 11 more...                  │
│ - FinalizeBlock()               │
│ - CreateSinglePredecessorFor    │
│ Loop()                          │
│ - AddLoopPredecessor()          │
│ - SplitEdge()                   │
└─────────────────────────────────┘
```

< reducer_list< Reducers...,
TSReducerBase > >

```
┌─────────────────────────────────┐
│   v8::internal::compiler        │
│   ::turboshaft::Assembler       │
│   < reducer_list< Reducers...,  │
│        TSReducerBase > >         │
├─────────────────────────────────┤
│ - current_block_                │
│ - current_catch_block_          │
│ - conceptually_in_a_block_      │
│ - current_operation_origin_     │
├─────────────────────────────────┤
│ + Assembler()                   │
│ + data()                        │
│ + phase_zone()                  │
│ + input_graph()                 │
│ + output_graph()                │
│ + graph_zone()                  │
│ + modifiable_input_graph()      │
│ + NewLoopHeader()               │
│ + NewBlock()                    │
│ + Bind()                        │
│ and 11 more...                  │
│ - FinalizeBlock()               │
│ - CreateSinglePredecessorFor    │
│ Loop()                          │
│ - AddLoopPredecessor()          │
│ - SplitEdge()                   │
└─────────────────────────────────┘
```

```
┌──────────────────────────────────────┐
│   v8::internal::compiler             │
│   ::turboshaft::TSAssembler          │
│   < Reducer, BuiltinsReducer,        │
│   FeedbackReducer, compiler          │
│   ::turboshaft::MachineLoweringReducer,│
│   compiler::turboshaft::VariableReducer >│
├──────────────────────────────────────┤
├──────────────────────────────────────┤
└──────────────────────────────────────┘
```

```
┌─────────────────────────────────┐
│   v8::internal::compiler        │
│   ::turboshaft::TSAssembler     │
│   < ExplicitTruncationReducer,  │
│   VariableReducer >             │
├─────────────────────────────────┤
├─────────────────────────────────┤
└─────────────────────────────────┘
```

```
┌──────────────────────────────────────────┐
│   v8::internal::compiler                 │
│   ::turboshaft::TSAssembler              │
│   < BlockOriginTrackingReducer,          │
│   TurbolevEarlyLoweringReducer,          │
│   MachineOptimizationReducer, VariableReducer,│
│   RequiredOptimizationReducer, ValueNumberingReducer >│
├──────────────────────────────────────────┤
├──────────────────────────────────────────┤
└──────────────────────────────────────────┘
```

```
┌──────────────────────────────────────────┐
│   v8::internal::compiler                 │
│   ::turboshaft::TSAssembler              │
│   < Reducer, BytecodeHandlerReducer,     │
│   BuiltinsReducer, FeedbackCollectorReducer,│
│   compiler::turboshaft::MachineLoweringReducer,│
│   compiler::turboshaft::VariableReducer >│
├──────────────────────────────────────────┤
├──────────────────────────────────────────┤
└──────────────────────────────────────────┘
```